SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 1 WASHINGTON, D. C., DECEMBER 14, 1927 WINTER 1927–28

REVIEW OF THE SNOWFALL CONDITIONS FOR THE SEASON TO DATE

September.—As is usual, some snow fell in September, particularly on the 25th and 26th in the central and northern Rocky Mountains, and to some extent in the adjacent plains to the eastward, notably in the western portions of Kansas, Nebraska, and South Dakota. In portions of these States the falls were the first of record for September and in others they were the greatest ever observed in that month, some stations receiving as much as 5 inches. In Colorado, depths ranging up to 2 feet fell in some of the high mountains, but to the northward the amounts over Wyoming and Montana were considerably less. Elsewhere in the mountain regions there were local light falls, and some snow occurred from North Dakota to the upper Lakes.

October had, as a rule, much less snow than usually falls in that month, particularly in the western mountains and the more northern districts, only traces occurring in the upper Lake region and northern New England where usually considerable amounts occur. Some heavy falls were reported from the mid-Appalachian region on the 17th and 18th, depths up to 12 inches being measured at the high elevations of Maryland and West Virginia.

In the far West some heavy snows occurred toward the end of the month in the high Sierra of California, the maximum depth being 35 inches. Amounts up to 26 inches were reported from Colorado, which was little more than occurred in September. In other Mountain States the snowfall in October was generally less than normal.

November had mainly no important snowfall, though moderate amounts fell from the Great Lakes and northern Ohio drainage westward over the northern and middle Great Plains to the Rocky Mountain districts. In the Eastern and Northeastern States there was usually but light snow, and similar conditions existed in the far West.

During the present month to date the most important snow over the eastern districts was that of the 4th and 5th from the Middle Atlantic States to New England, and of the 6th to 8th over the western mountain regions and eastward over the northern Plains to the upper Lakes where, in many localities, the falls were heavy, and in the upper Mississippi Valley and near-by areas the storm took on the character of a blizzard, with severe cold, high winds, and drifting snow, which blocked traffic over large areas and put a stop to many outdoor operations.

DEPTH OF SNOW ON GROUND

At the present writing considerable snow covers the ground in the western mountain areas, a depth of nearly 6 feet being reported at a point in the mountains of Washington and somewhat less amounts at high points in Oregon and Idaho. Heavy snows are reported from the high elevations of Arizona and a moderate covering exists over most of the remaining Plateau and Rocky Mountain areas. Deep snows prevail locally from northern Montana eastward to the Great Lakes and generally over the adjacent sections of Canada.

But little of the moderate snow cover over the Middle and North Atlantic States that fell early in the month now remains, the ground being practically bare save in extreme northern New England.

ICE IN RIVERS AND HARBORS

Considerable ice formed over the upper portions of the Missouri and Mississippi Valleys and the harbors of Lake Superior. Elsewhere little ice has formed so far.

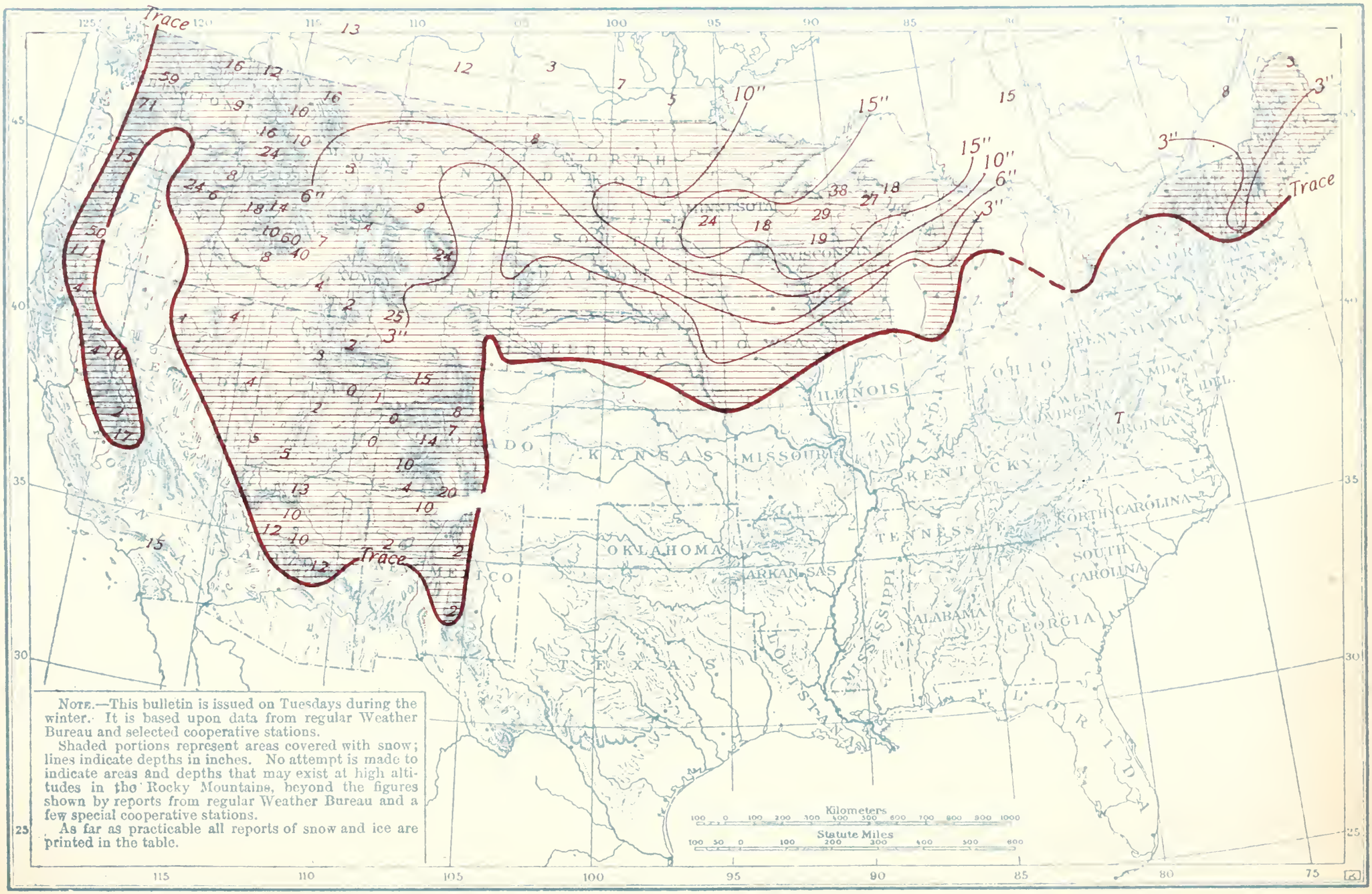
P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., DECEMBER 12, 1927

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
Arizona	*Inches*	*Inches*	*Nebraska*	*Inches*	*Inches*
Flagstaff	10	.....	Broken Bow	1	.....
Grand Canyon	10	.....	Omaha	1	9.0
Pinedale	12	.....	O'Neill	2	.....
Prescott	2	.....	Valentine	T.	.....
California			*Nevada*		
Big Creek	17	.....	Elko	2	.....
McCloud	4	.....	McGill	4	.....
Norden	10	.....	North Fork	4	.....
Squirrel Inn	15	.....	Winnemucca	1	.....
Yosemite	2	.....	*New Hampshire*		
Colorado			Concord	T.	0.0
Cumbres	20	.....	Hanover	2	.....
Durango	4	.....	Pittsburg	5	.....
Leadville	7	.....	*New Mexico*		
Steamboat Springs	15	.....	Chama	10	.....
Idaho			Cloudcroft	2	.....
Boise	T.	.....	Tres Piedras	1	.....
Hailey	2	.....	*New York*		
McCall	18	.....	Buffalo	T.	*
Pocatello	4	.....	Canton	T.	.....
Porthill	12	.....	*North Dakota*		
Soldier Creek	8	.....	Bismarck	10	12.0
Spencer	7	.....	Devils Lake	1	.....
Vienna Mine	60	.....	Williston	8	18.0
Iowa			*Oregon*		
Atlantic	6	.....	Baker	6	.....
Charles City	8	.....	Crater Lake	50	.....
Davenport	T.	*†	Government Camp	15	.....
Des Moines	2	8.0	Imperial Mine	24	.....
Estherville	4	.....	Siskiyou	11	.....
Sioux City	T.	5.0	Wallowa	8	.....
Waterloo	8	.....	*South Dakota*		
Maine			Huron	6	11.5
Gardiner	T.	*	Pierre	5	21.0
Greenville	3	0.0	Yankton	2	6.0
Portland	2	0.0	*Utah*		
Van Buren	3	.....	Cedar City	5	.....
Michigan			Deseret	2	.....
Benzonia	6	.....	Logan	1	.....
Bloomingdale	1	.....	Manti	2	.....
Cadillac	4	.....	Modena	5	.....
Escanaba	15	5.0	Salt Lake City	3	.....
Grand Rapids	1	.....	Watson	1	.....
Houghton	16	4.5	*Vermont*		
Humboldt	27	.....	Bellows Falls	4	.....
Ironwood	38	.....	Brattleboro	0	†
Ludington	1	.....	Northfield	T.	.....
Marquette	18	5.0	*Washington*		
Newberry	13	.....	Cascade Tunnel	59	.....
Port Huron	0	*	Laurier	16	.....
Sault Ste. Marie	15	3.0	Paradise Inn	71	.....
Minnesota			Seattle	T.	0.0
Campbell	24	.....	Spokane	9	.....
Duluth	7	13.5	*Wisconsin*		
Fort Ripley	13	.....	Eau Claire	12	.....
Grand Meadow	5	.....	Fond du Lac	4	.....
Minneapolis	11	.....	Green Bay	11	8.0
Moorhead	7	16.0	La Crosse	18	5.0
Mora	18	.....	Madison	2	.....
St. Paul	12	10.5	Milwaukee	T.	.....
Thief River Falls	9	.....	Park Falls	29	.....
Virginia	12	.....	Wausau	15	4.0
Worthington	7	.....	*Wyoming*		
Montana			Dixon	2	.....
Belton	16	.....	Dome Lake	24	.....
Haugan	10	.....	Evanston	2	.....
Havre	6	.....	Lander	1	.....
Helena	3	.....	Newcastle	3	.....
Kalispell	6	.....	Sheridan	2	.....
Stanford	2	.....	Yellowstone Park	4	.....

*Shore ice. †Floating ice. ‡Ice gorged. §Measurement impracticable.
T. indicates trace.

Depth of Snow on Ground, 8 p. m., December 12, 1927



NOTE.—This bulletin is issued on Tuesdays during the winter. It is based upon data from regular Weather Bureau and selected cooperative stations.

Shaded portions represent areas covered with snow; lines indicate depths in inches. No attempt is made to indicate areas and depths that may exist at high altitudes in the Rocky Mountains, beyond the figures shown by reports from regular Weather Bureau and a few special cooperative stations.

As far as practicable all reports of snow and ice are printed in the table.

SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 2 WASHINGTON, D. C., DECEMBER 21, 1927 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

The week just closed was attended by important weather changes and, on the whole, was again decidedly winterish over most central and western districts, and outdoor work was mainly at a standstill. No extremely low temperatures were recorded, but freezing weather extended into all portions of the country save central and southern Florida, southern Texas, and the lower elevations of Arizona and California.

Temperatures below zero occurred from eastern Washington southeastward to western Kansas and thence northeast to Lake Superior, the lowest ranging from 20° to 30° below zero over eastern Montana, North Dakota, and western Minnesota. The average temperatures for the week ranged from 10° to more than 20° below normal over the upper Missouri Valley and the central and northern portions of the Rocky Mountain and Plateau regions, but there were small excesses over most eastern districts where some unusually high temperatures occurred.

Precipitation was rather general and in amounts sufficient for present needs from the Mississippi Valley eastward, with local areas of heavy falls in some of the Central States causing floods with more or less damage to corn and other crops still ungathered in the valleys. Snow was rather frequent, but usually light, in the Northern States between the Rocky Mountains and Great Lakes, and the amounts of either rain or snow over the western two-thirds of the country were mainly small.

The major portion of the precipitation occurred during the first half of the week, and rather stormy conditions prevailed in the upper Mississippi Valley and Great Lakes region on Thursday and Friday with general snow and high winds again blocking roads over much of that area. Considerable snow and rain occurred on Friday over the more eastern districts, with damaging glaze formation locally in New York.

DEPTH OF SNOW ON GROUND

Generally speaking, the depth of snow increased by small amounts over that reported last week, save in Iowa and small areas nearby where there was a slight reduction and in parts of the western mountain areas where, in Arizona and portions of near-by States, there were important decreases. There were increases up to about 15 inches in northern New England, and somewhat less from the upper Lake region westward to North Dakota. A few points in the mountains of Idaho, Washington, and Oregon had substantial increases.

A heavy cover for so early in the season now prevails over the northern Plains and upper Lake region, with depths of 3 to 4 feet, or even more, at points in the Upper Michigan Peninsula. The cover over northern New England and near-by portions of New York is only moderate, so far. In the western mountain districts there is a substantial cover over most lower elevations, particularly in the winter wheat areas of the far Northwest, with deep covers over some of the higher mountains. In California the depths at present are mainly small.

ICE IN RIVERS AND HARBORS

Due to continued cold over the central and western districts, there was a further increase in the amounts of ice over the rivers and lakes of that region, and rather unusual thickness of ice now prevails over the upper portions of the Mississippi and Missouri Rivers and in some harbors of the upper Lakes.

In the Missouri ice ranges from 12 inches at Omaha to nearly 2 feet at Williston, N. Dak., and in the Mississippi from 5 inches at Keokuk to nearly 12 inches at St. Paul. Practically no ice has yet formed on the rivers of the Atlantic coast, except in central Maine where a thickness of 7 inches is reported.

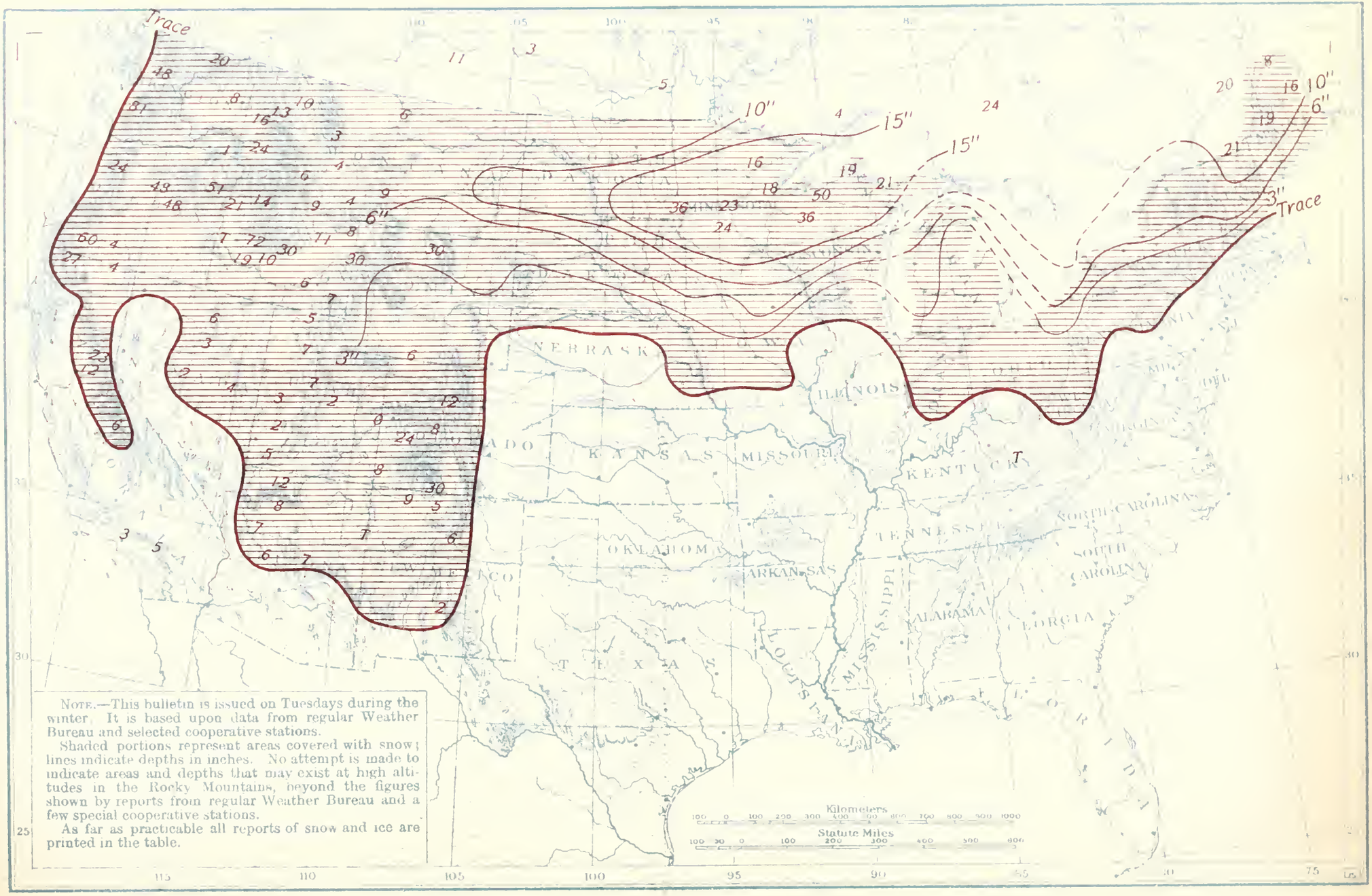
P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., DECEMBER 19, 1927

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
Alaska	*Inches*	*Inches*	*New Hampshire*	*Inches*	*Inches*
Eagle	17	.....	Berlin	14	.....
Juneau	18	.....	Hanover	6	.....
Nome	8	.....	Keene	3	.....
Arizona			Pittsburg	21	.....
Bright Angel	12	.....	*New Mexico*		
Williams	7	.....	Chama	9	.....
California			Tres Piedras	5	.....
Blue Canyon	12	.....	Winsors Ranch	6	.....
Huntington Lake	6	.....	*New York*		
McCloud	6	.....	Albany	1	0.0
Mount Wilson	3	.....	Beaver River	12	.....
Norden	23	.....	Binghamton	2	.....
Colorado			Buffalo	11	*
Cumbres	30	.....	Canton	6	.....
Denver	1	.....	Oswego	8	0.0
Dillon	12	.....	Plattsburg	8	.....
Leadville	8	.....	Rochester	4	0.0
Rico	8	.....	*North Dakota*		
Idaho			Bismarck	14	15.0
Ketchum	11	.....	Williston	7	23.0
McCall	21	.....	*Ohio*		
Mackay	3	.....	Canfield	5	.....
Pocatello	6	.....	Cleveland	1	†
Vienna Mine	72	.....	Dover	1	.....
Iowa			Sandusky	T.	4.5
Des Moines	T.	11.5	Wooster	2	.....
Dubuque	T.	8.0	*Oregon*		
Forest City	4	.....	Baker	5	.....
Keokuk	T.	5.0	Government Camp	24	.....
Pocahontas	4	.....	Imperial Mine	48	.....
Sioux City	1	15.0	Lakeview	4	.....
Maine			*Pennsylvania*		
Eastport	5	0.0	Beaver Falls	2	.....
Gardiner	6	‡	Erie	8	0.5
Greenville	19	7.0	Franklin	5	.....
Houlton	16	.....	Harrisburg	T.	*
Millinocket	12	.....	Johnstown	2	.....
Michigan			Pittsburgh	2	0.0
Alpena	3	3.0	*South Dakota*		
Cadillac	4	.....	Pierre	4	23.5
Detroit	T.	†	Yankton	1	14.0
Escanaba	16	8.5	*Utah*		
Grand Haven	3	.....	Logan	5	.....
Ironwood	50	.....	Milford	2	.....
Lansing	1	.....	Ogden	3	.....
Sault Ste. Marie	13	5.0	Provo	7	.....
Minnesota			Salt Lake City	7	.....
Collegeville	24	.....	*Vermont*		
Duluth	18	15.0	Brattleboro	5	†
Ely	18	.....	Burlington	6	0.0
Grand Meadow	9	.....	St. Johnsbury	8	.....
Leech Lake Dam	16	.....	*Washington*		
Mankato	14	.....	Cascade Tunnel	48	.....
Moorhead	22	19.0	Paradise Inn	81	.....
St. Paul	16	11.5	Spokane	8	.....
Montana			*West Virginia*		
Billings	6	.....	Clarksburg	1	.....
Bozeman	4	.....	Wheeling	1	.....
Choteau	3	.....	*Wisconsin*		
Dillon	9	.....	Green Bay	6	11.0
Helena	4	.....	La Crosse	16	6.0
Miles City	10	.....	Medford	22	.....
Thompson Falls	13	.....	Park Falls	36	.....
Nebraska			Wausau	14	9.0
Omaha	T.	12.0	*Wyoming*		
O'Neill	2	.....	Alta	30	.....
Nevada			Cody	3	.....
Austin	2	.....	Dome Lake	30	.....
Elko	3	.....	Newcastle	6	.....
McGill	4	.....	Yellowstone Park	8	.....

* Shore ice. † Floating ice. ‡ Ice gorged. § Measurement impracticable.
T. indicates trace.

Depth of Snow on Ground, 8 p. m., December 19, 1927



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SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 3 WASHINGTON, D. C., DECEMBER 28, 1927 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

The week just closed was again decidedly winterish as to temperature, the weekly means being below normal over the greater part of the country, and decidedly so in the far Northwest and slightly less so in the more southern districts, Miami, Fla., averaging 11° and Brownsville, Tex., 12° below normal. There was little precipitation save in the far West, and clear weather afforded opportunity for much outdoor work, the week being particularly favorable for corn husking, which made satisfactory progress.

While temperatures remained generally lower than normal, there was, on the whole, some warming up as the week advanced and at the close moderate winter temperatures prevailed in most districts. Minimum temperatures were below freezing at some time during the week over the greater part of the country, and some damage to vegetation occurred in the interior portions of southern Florida on Thursday and Friday.

About the only important cyclone of the week developed over the far Southwest near the close and was central over eastern Arizona on the morning of the 27th, though pressure was falling over most western districts. The precipitation from this storm was particularly beneficial over southern California and near-by areas. Anticyclonic conditions persisted during most of the week over the districts from the Rocky Mountains eastward, and an extensive high pressure area was central at the close over the more eastern States.

DEPTH OF SNOW ON GROUND

No important changes occurred in the depth of the snow cover nor in the area over which an appreciable cover now exists as compared with the preceding week, save for a few small areas in the upper Lake region and central New England where decreases ranged up to a foot or slightly more, and in the far Southwest where in portions of Arizona and Utah near the end of the week increases up to 6 inches were reported.

The ground still has a fairly heavy cover in the upper Lake region and thence westward to Montana, and side roads are still largely impassable through drifting snow in portions of this area. Farther south the depth rapidly decreases and the greater part of the winter wheat belt is still unprotected, though, due to steady cold, there was little extensive freezing and thawing of the ground during the week.

ICE IN RIVERS AND HARBORS

Due to persistent cold throughout the Northwest, considerable further increases in the ice thickness occurred over the rivers and lakes of that region. In the Missouri River and its tributaries the ice now ranges from 17 inches at Sioux City, Iowa, to more than 2 feet at Pierre, S. Dak., while on the Mississippi River it ranges from 8 inches at Hannibal, Mo., to 10 inches at La Crosse, Wis.

Sufficient ice has now formed on most of the rivers and lakes of that region to enable harvesting and this work is beginning in some localities.

Only moderate increases occurred, as a rule, in the ice cover on the harbors of the upper Lakes, and not much has yet formed on the lower Lakes. Over the Ohio River and its tributaries there is little or no ice on the main streams, and practically none has yet formed on the important streams of the Atlantic Coast States from the Hudson southward. In New England the ice conditions continue about as reported a week ago.

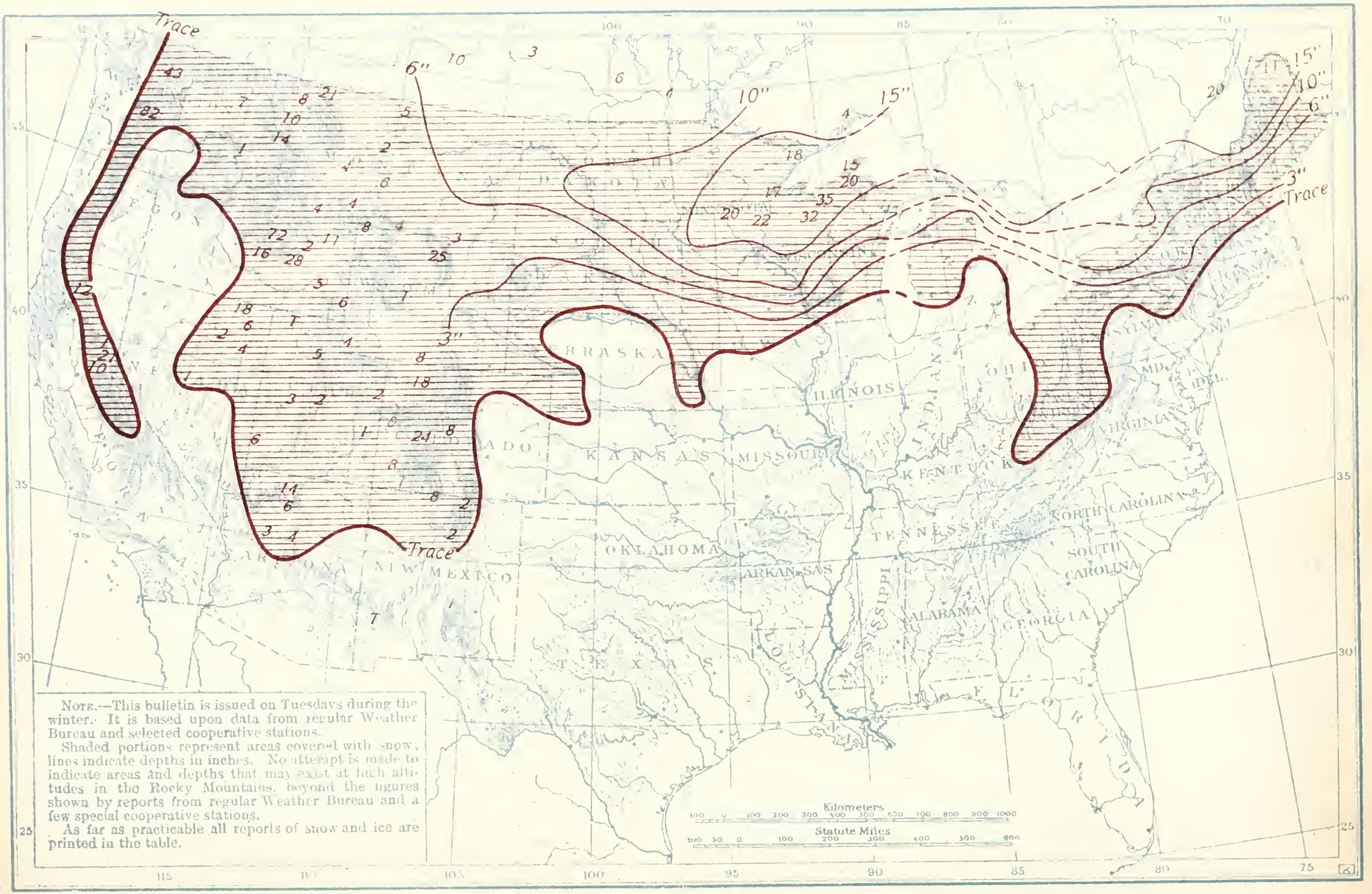
P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., DECEMBER 26, 1927

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
Alaska	*Inches*	*Inches*	*Nebraska*	*Inches*	*Inches*
Fort Yukon	14	.....	Imperial	2	.....
Juneau	14	.....	Omaha	T.	§
St. Paul Island	1	.....	*Nevada*		
Tanana	18	.....	Arthur	4	.....
Arizona			Gold Creek	18	.....
Bright Angel	14	.....	*New Hampshire*		
Flagstaff	4	.....	Berlin	8	.....
Grand Canyon	6	.....	Concord	2	0.0
California			Pittsburg	20	.....
Macumber	3	.....	*New Mexico*		
Norden	21	.....	Chama	8	.....
Sierraville	1	.....	Cloudcroft	1	.....
Colorado			*New York*		
Crested Butte	24	.....	Alfred	3	.....
Durango	1	.....	Buffalo	6	*
Steamboat Springs	18	.....	Delhi	4	.....
Idaho			Herkimer	4	.....
Hailey	8	.....	Ithaca	3	.....
Lewiston	1	0.0	Lowville	12	.....
Mascot Mine	28	.....	Ogdensburg	8	.....
Oxford Ranger Sta	6	.....	Oswego	8	2.5
Pocatello	5	.....	Saranac Lake	8	.....
Soldier Creek	16	.....	Syracuse	9	.....
Spencer	11	.....	*North Dakota*		
Vienna Mine	72	.....	Bismarck	12	19.0
Iowa			Williston	7	23.5
Charles City	5	.....	*Ohio*		
Des Moines	T.	14.0	Cleveland	1	7.5
Dubuque	T.	10.0	Sandusky	0	6.5
Iowa Falls	2	.....	*Pennsylvania*		
Sioux City	T.	17.0	Emporium	1	.....
Maine			Freeland	1	.....
Farmington	14	.....	Pittsburgh	1	0.0
Gardiner	4	4.0	*South Dakota*		
Greenville	16	7.0	Huron	6	18.0
Portland	4	0.0	Pierre	3	26.5
Van Buren	11	.....	Rapid City	T.	.....
Massachusetts			Yankton	T.	16.0
Holyoke	0	1.0	*Utah*		
Michigan			Deseret	3	.....
Alpena	4	*	Moab	1	.....
Benzonia	6	.....	Modena	6	.....
Ewen	20	.....	Silver Lake	39	.....
Grand Rapids	1	.....	Watson	2	.....
Houghton	15	10.0	*Vermont*		
Ironwood	35	.....	Brattleboro	3	4.0
Mackinaw	9	.....	Burlington	9	0.0
Marquette	15	2.0	Northfield	6	.....
Port Huron	0	4.0	Rutland	4	.....
Sault Ste. Marie	12	5.0	White River Junction	4	.....
Minnesota			*Washington*		
Duluth	17	17.5	Cascade Tunnel	43	.....
Fort Ripley	20	.....	Paradise Inn	82	.....
Leech Lake Dam	17	.....	Spokane	7	.....
Minneapolis	12	.....	*West Virginia*		
Moorhead	14	21.0	Bayard	4	.....
Mora	22	.....	Elkins	1	0.0
Thief River Falls	10	.....	*Wisconsin*		
Virginia	16	.....	Green Bay	5	13.0
Worthington	6	.....	La Crosse	14	10.0
Montana			Medford	19	.....
Belton	21	.....	Park Falls	32	.....
Haugan	14	.....	Wausau	6	13.0
Havre	5	.....	*Wyoming*		
Kalispell	8	.....	Dixon	8	.....
Loweth	6	.....	Dome Lake	25	.....
Miles City	9	.....	Evanston	4	.....
Red Lodge	4	.....	Lander	1	.....
Stanford	2	.....	Sheridan	3	.....
			Yellowstone Park	8	.....

*Shore ice. †Floating ice. ‡Ice gorged. §Measurement impracticable.
T. indicates trace.

Depth of Snow on Ground, 8 p. m., December 26, 1927



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SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 4 WASHINGTON, D. C., JANUARY 4, 1928 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

At the beginning of the week stormy conditions had set in over the far West and by Wednesday morning an extensive area of precipitation had advanced into the central valleys, with heavy rains in eastern Texas and some near-by areas and lighter precipitation, mostly rain, in other central districts, and snow, sleet, and glaze in portions of the upper Lake region and more or less snow in the western mountains.

During Wednesday and Thursday the precipitation area extended into all eastern districts, with heavy falls in portions of the Gulf States, and more or less rain or snow continued in the Rocky Mountains and to the westward.

By Saturday the weather had mainly cleared in the far West and severe cold had overspread the more northern districts. In the central valleys precipitation had again set in and during Saturday overspread most districts from the eastern Plains to the Atlantic coast, continuing during early Sunday over the northeastern districts. In the meantime, the cold area had advanced eastward and by Sunday covered all portions of the country from the Rocky Mountains eastward, severe cold penetrating to the Gulf and South Atlantic coasts and into central Florida, causing uncertain damage to tender truck and possibly to citrus fruits.

At the end of the week cold weather persisted over much of the country, and during the last few days considerable rain or snow had fallen in the more northwestern districts. At the morning observation of January 3 light snow was falling at a number of points in the central portions of the Gulf and South Atlantic Coast States, but elsewhere there was little precipitation and temperatures continued below normal in most districts.

The weekly means of temperature were below normal, except in the northeast and southeast sections. Over the interior valleys and Northwest the averages ranged from 10° to 30° below normal, due to the intense cold of the latter part of the week when temperatures near 40° below zero occurred in the northern Plains, and zero temperatures occurred southward to northern New Mexico and thence eastward to the southern Appalachian Mountains, with freezing temperatures, or lower, to the Gulf and South Atlantic coasts and nearly to the southern portion of Florida.

DEPTH OF SNOW ON GROUND

Increases in the depth of the snow cover were rather important in the western mountain districts, in portions of the Lake Superior region, and over a considerable area from central Kansas northeastward to southern Michigan and northern Ohio. From Pennsylvania northeastward to New England there were important reductions in the snow depths as compared with the previous week, and but little snow now covers the ground, the depths being particularly slight for the period of the year in the northern portions of New York and New England.

The snow-covered area has extended materially southward over the Great Plains and central valleys as compared with the previous week, and a good portion of the winter-wheat area now has a moderate covering, though the more southern portions were exposed during the severe cold of the latter part of the week. In the far West the winter-wheat area was generally well protected.

ICE IN RIVERS AND HARBORS

The amount of ice on the rivers and lakes of the upper Mississippi and Missouri drainage areas increased materially, as also at points in northern New England and locally in the harbors of the Great Lakes. Elsewhere the changes were unimportant.

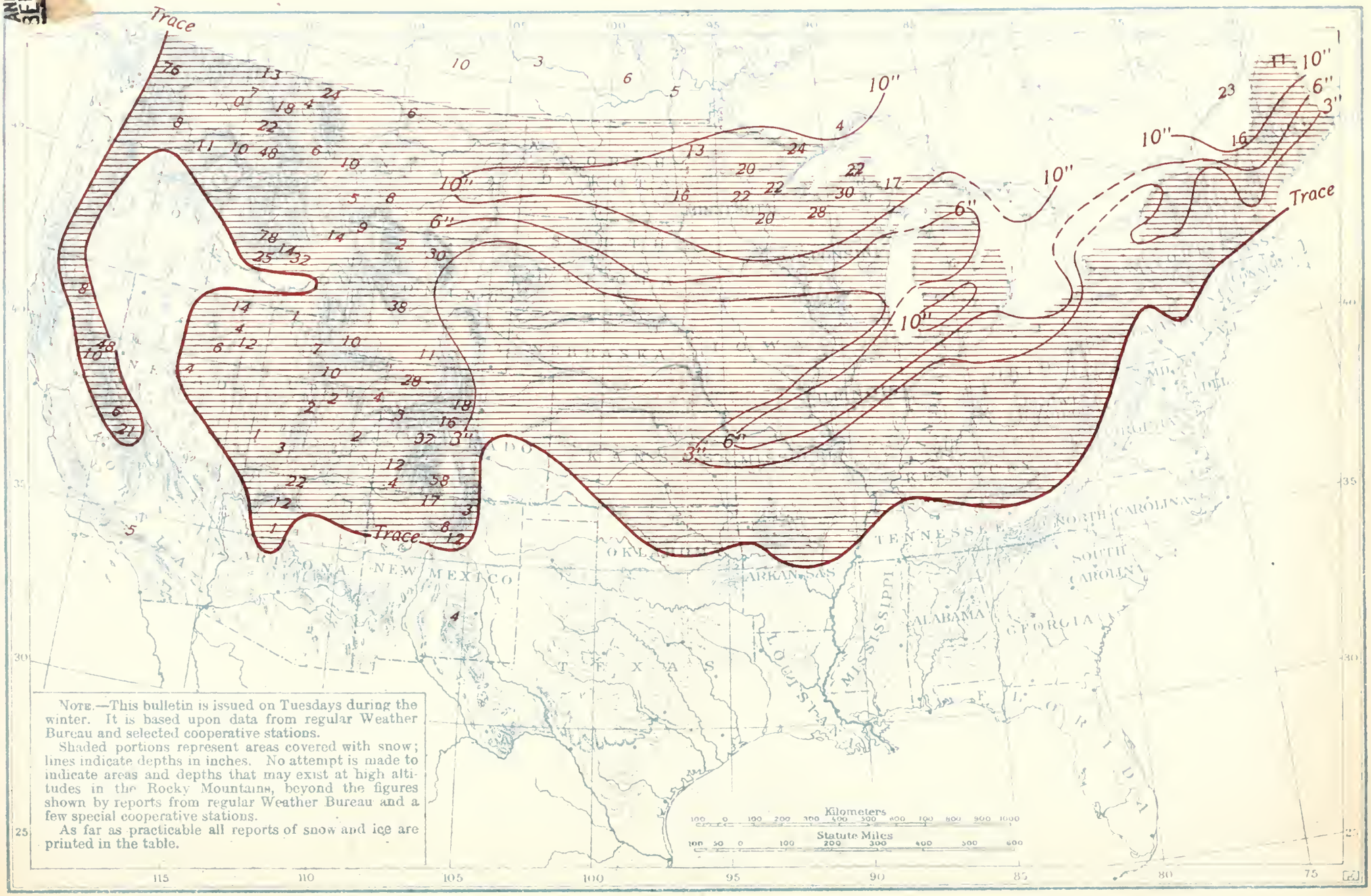
P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., JANUARY 2, 1928

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
Arkansas	*Inches*	*Inches*	*Missouri*	*Inches*	*Inches*
Bentonville	2	.....	Clinton	4	.....
Little Rock	T.	0.0	Columbia	4	.....
California			Hannibal	6	‡
Huntington Lake	21	.....	Kansas City	6	‡
McCloud	8	.....	Rolla	1	.....
Mount Wilson	5	.....	St. Joseph	1	.....
Norden	48	.....	St. Louis	2	†
Yosemite	6	.....	*Montana*		
Colorado			Bozeman	5	.....
Cumbres	58	.....	Helena	10	.....
Dillon	18	.....	Miles City	12	.....
Grand Junction	3	.....	Missoula	6	.....
Rico	12	.....	*Nebraska*		
Idaho			Broken Bow	2	.....
Kellogg	22	.....	Lincoln	1	.....
Ketchum	14	.....	North Platte	1	.....
Lewiston	10	*†	Valentine	1	.....
Pierce City	48	.....	*Nevada*		
Porthill	13	.....	Gold Creek	14	.....
Vienna Mine	78	.....	Hylton	6	.....
Illinois			*New Mexico*		
Chicago	7	.....	Cloudcroft	4	.....
Peoria	5	5.0	Elizabethtown	3	.....
Pontiac	7	.....	Truchas	8	.....
Springfield	6	.....	*New York*		
Indiana			Buffalo	2	1.0
Fort Wayne	2	.....	Oswego	4	†
Lafayette	3	.....	Rome	4	.....
Notre Dame	9	.....	Watertown	1	.....
Royal Center	4	.....	*North Dakota*		
Terre Haute	2	‡	Devils Lake	1	.....
Iowa			Williston	6	25.0
Davenport	1	11.0	*Ohio*		
Dubuque	T.	12.0	Columbus	1	0.0
Estherville	3	.....	Tiffin	5	.....
Keokuk	6	6.0	Toledo	3	6.0
Sioux City	T.	19.0	Zanesville	1	.....
Kansas			*Oregon*		
Dresden	1	.....	Imperial Mine	56	.....
Iola	2	0.0	Sled Springs	21	.....
Smith Center	2	.....	*Pennsylvania*		
Topeka	2	.....	Beaver Falls	3	.....
Kentucky			Erie	10	2.5
Louisville	T.	†	Pittsburgh	T.	†
Maysville	1	.....	Warren	2	.....
Owensboro	1	.....	*South Dakota*		
Maine			Huron	8	20.0
Gardiner	T.	2.0	Rapid City	1	.....
Greenville	13	15.0	Yankton	T.	19.0
Houlton	10	.....	*Utah*		
Michigan			Cedar City	3	.....
Battle Creek	10	.....	Kelton	1	.....
Bloomingdale	10	.....	Provo	10	.....
Detroit	6	†	Salt Lake City	7	.....
Escanaba	10	14.0	*Vermont*		
Grand Haven	6	.....	Bellows Falls	2	.....
Houghton	22	12.0	Northfield	2	.....
Iron Mountain	15	.....	*Washington*		
Lansing	12	.....	Cascade Tunnel	76	.....
Ludington	4	.....	Walla Walla	11	.....
Newberry	12	.....	Yakima	8	.....
Saginaw	5	.....	*Wisconsin*		
Minnesota			Eau Claire	20	.....
Fort Ripley	22	.....	La Crosse	5	16.0
Mankato	6	.....	Wausau	10	16.0
Moorhead	16	22.0	*Wyoming*		
Roseau	4	.....	Cheyenne	2	.....
St. Paul	14	6.5	Newcastle	2	.....
Thief River Falls	13	.....	Sheridan	6	.....
Virginia	22	.....	Yellowstone Park	9	.....

*Shore ice. †Floating ice. ‡Ice gorged. §Measurement impracticable.
T. indicates trace.

Depth of Snow on Ground, 8 p. m., January 2, 1928



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Shaded portions represent areas covered with snow; lines indicate depths in inches. No attempt is made to indicate areas and depths that may exist at high altitudes in the Rocky Mountains, beyond the figures shown by reports from regular Weather Bureau and a few special cooperative stations.

As far as practicable all reports of snow and ice are printed in the table.

SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 5 WASHINGTON, D. C., JANUARY 11, 1928 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

The severe cold existing over much of the country at the close of the preceding week continued for the first few days, and there was a tendency to slightly lower temperatures for several days over the more southeastern districts, the line of freezing extending well into south-central and southern Florida and southern Texas, temperatures of 20° or lower reaching to the Gulf coast and into north-central Florida. Over the Northwest and central districts the temperature began to rise early in the week and warmer weather soon extended into nearly all other districts, so that by the middle of the week they were normal or above in all parts of the country save the Southeastern States, where unusual cold persisted throughout nearly the entire week and much damage resulted to winter truck and fruits of nearly all kinds, save in the extreme southern portions of the Florida Peninsula.

The mean temperature for the week was above normal in all parts from New England westward and southwestward to the Pacific coast, the weekly averages being particularly high, from 10° to 25° above normal, over the more northern districts. On the other hand, the week was unusually cold, from 5° to 10° below normal, over the Southeastern States, brought about by persistently low temperatures nearly throughout.

The precipitation was unusually light for a midwinter week, and no important storms occurred in any part. Over many northern sections, save in the far Northwest, there was little or no rain or snow, and similar conditions existed in the middle and southern Plains and to the westward.

An unusual amount of sunshine occurred in nearly all parts of the country, but outdoor work was handicapped by the severe cold of the first few days and by wet soil during the latter half.

DEPTH OF SNOW ON GROUND

In practically all parts of the country where snow existed at the beginning of the week, save at a few points in western Montana, the amounts decreased after the first few days and by the close only a slight cover remained, except in extreme northern Maine, in the Lake Superior region, thence westward to the upper Missouri Valley, and at the higher elevations of the western mountains.

The considerable body of snow on the ground at the beginning from eastern Kansas and the adjacent portions of Missouri northeastward to southern Michigan and northern Ohio had largely disappeared, and there was a general reduction in depth of from 4 to 10 inches over the upper Lake region and thence westward to central Montana where heavy snow had persisted for a considerable period. Over the western slopes of the Rocky Mountains and generally in other mountain districts of the West there were important decreases, ranging up to 10 inches and in a few cases up to 1 or 2 feet.

The snow-covered area is now much less than at the beginning, the decrease in area being most pronounced in the middle Plains States and thence eastward over the middle Mississippi and Ohio Valleys and northeastward to central New England, where the rather general and locally heavy covering present the previous week is now mainly gone. As a result of this the major portion of the eastern winter-wheat area has been subjected to frequent alternate freezing and thawing with probable material injury. The far northwestern winter-wheat area has had a satisfactory cover for several weeks.

ICE IN RIVERS AND HARBORS

Slight increases occurred during the week in the ice thickness over the rivers and harbors that were covered a week ago, but the Ohio and the main streams of the Atlantic Coast States are still largely without ice of important thickness.

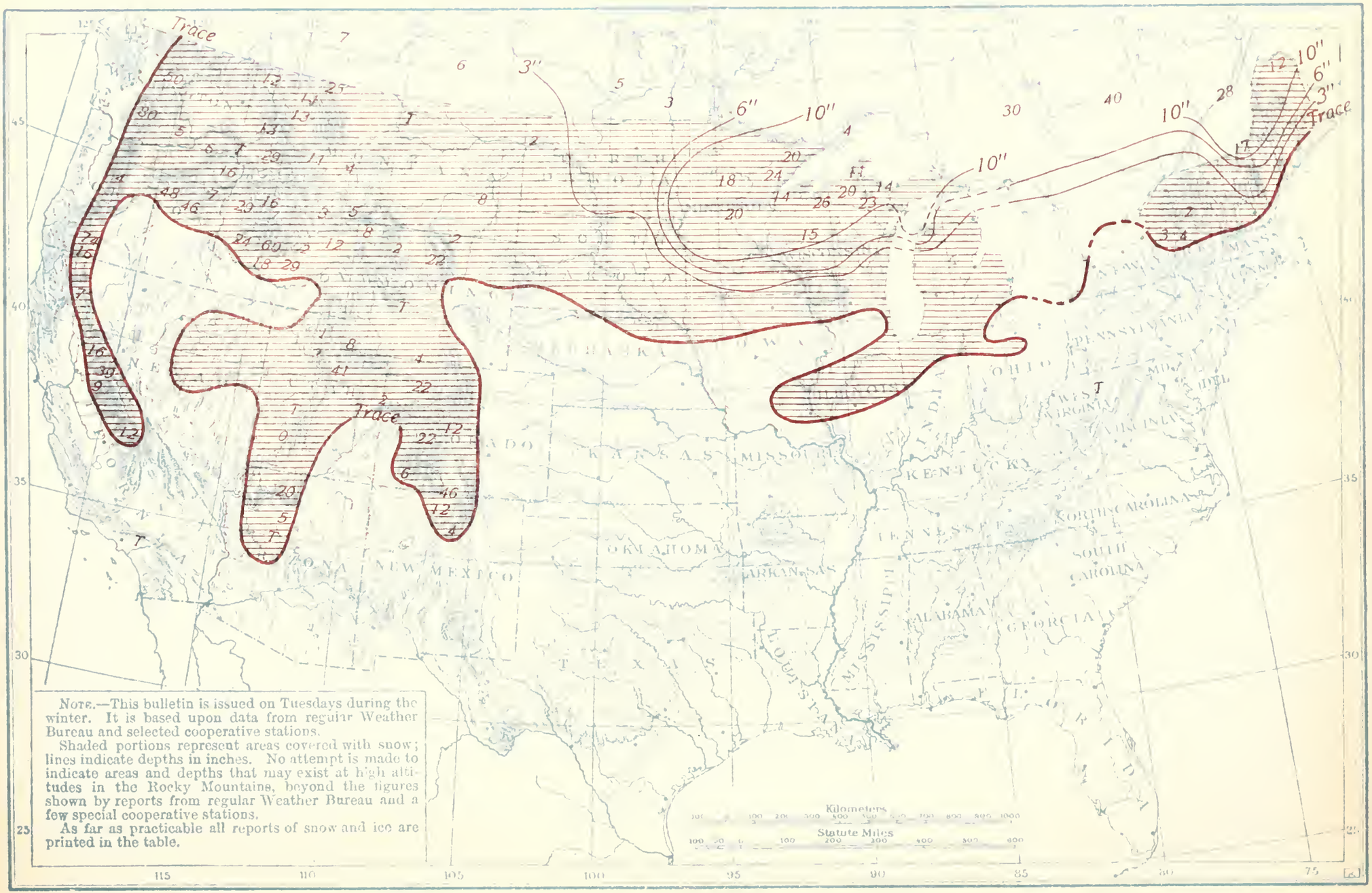
P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., JANUARY 9, 1928

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
Arizona	*Inches*	*Inches*	*Nevada*	*Inches*	*Inches*
Bright Angel	20	.....	Arthur	3	.....
Grand Canyon	5	.....	Austin	1	.....
California			North Fork	2	.....
Blue Canyon	9	.....	*New Hampshire*		
Macumber	9	.....	Berlin	3	.....
Norden	39	.....	Durham	T.	.....
Relief	16	.....	Hanover	1	.....
Colorado			Pittsburg	17	.....
Crested Butte	22	.....	*New Mexico*		
Cumbres	46	.....	Chama	12	.....
Leadville	12	.....	Cloudcroft	1	.....
Steamboat Springs	22	.....	Truchas	4	.....
Idaho			*New York*		
Hailey	10	.....	Beaver River	2	.....
Idaho City	24	.....	Buffalo	T.	4.0
McCall	29	.....	Lowville	3	.....
Mackay	2	.....	Old Forge	4	.....
Mascot Mine	29	.....	*North Dakota*		
Pierce City	29	.....	Bismarck	5	22.0
Soldier Creek	18	.....	Ellendale	1	.....
Spencer	12	.....	Williston	2	26.5
Vienna Mine	60	.....	*Ohio*		
Illinois			Cleveland	0	†
Peoria	T.	6.0	Sandusky	0	8.0
Indiana			Toledo	0	6.5
Angola	2	.....	Wauseon	T.	.....
Collegeville	2	.....	*Oregon*		
Evansville	0	†	Baker	7	.....
Iowa			Crater Lake	74	.....
Des Moines	0	16.5	Detroit	4	.....
Dubuque	0	10.0	Fish Lake	16	.....
Keokuk	T.	9.0	Harrison Mine	48	.....
Maine			Wallowa	9	.....
Farmington	7	.....	*South Dakota*		
Greenville	12	18.0	Huron	2	20.0
Millinocket	8	.....	Pierre	2	31.5
Van Buren	12	.....	Rapid City	T.	.....
Michigan			Yankton	T.	18.0
Alma	1	.....	*Utah*		
Bad Axe	2	.....	Logan	1	.....
Benzonia	12	.....	Salt Lake City	2	.....
East Jordan	4	.....	Silver Lake	41	.....
Escanaba	7	16.0	Watson	2	.....
Ewen	20	.....	*Vermont*		
Grayling	1	.....	Brattleboro	0	7.0
Houghton	11	12.0	Burlington	T.	*
Humboldt	23	.....	Northfield	T.	.....
Ironwood	26	.....	White River Junction	1	.....
Lansing	3	.....	*Washington*		
Mackinaw	4	.....	Cascade Tunnel	50	.....
Marquette	14	0.0	Paradise Inn	80	.....
Port Huron	T.	4.0	Walla Walla	6	.....
Sault Ste. Marie	10	10.0	Yakima	5	.....
Minnesota			*Wisconsin*		
Collegeville	12	.....	Eau Claire	7	.....
Duluth	14	22.0	Fond du Lac	T.	.....
Ely	20	.....	Green Bay	2	15.0
Leech Lake Dam	18	.....	La Crosse	1	17.0
Montevideo	12	.....	Medford	15	.....
Moorhead	12	23.0	Park Falls	23	.....
Mora	18	.....	Stevens Point	6	.....
Roseau	3	.....	Wausau	6	17.0
St. Paul	13	*	*Wyoming*		
Thief River Falls	10	.....	Cody	2	.....
Virginia	24	.....	Dixon	4	.....
Montana			Dome Lake	22	.....
Belton	25	.....	Evanston	8	.....
Dillon	2	.....	Lander	T.	.....
Kalispell	14	.....	Sheridan	2	.....
Miles City	8	.....	Yellowstone Park	8	.....

*Shore ice. †Floating ice. ‡Ice gorged. § Measurement impracticable. T. indicates trace.

Depth of Snow on Ground, 8 p. m., January 9, 1928



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As far as practicable all reports of snow and ice are printed in the table.

SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 6 WASHINGTON, D. C., JANUARY 18, 1928 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

The week opened with fair weather and moderate winter temperatures in practically all parts of the country, and similar conditions persisted during much of the week save that considerable cloudy weather, with local light rains or snows, existed over the northern half during the latter portion.

The temperature changes from day to day were unusually small for a midwinter week, and temperatures below zero occurred only over small areas in the more northern districts from the Rocky Mountains eastward, and freezing temperatures were recorded southward only to the central portions of the country save in the western Mountain States.

The weekly means of temperature were far above normal over all districts from the Plateau region eastward, save in extreme southern Florida, the departures being unusually large, +15° to +20° or more, over all interior portions. A small area in the central Pacific coast section had weekly temperatures slightly below normal.

The week was again unusually free from severe storms common to the season and precipitation was light in practically all parts; the only areas with appreciable amounts were the northeastern and northwestern sections, while large areas in the southern and central portions had none or not more than traces.

DEPTH OF SNOW ON GROUND

In the absence of important snowfalls during the week there was a very general reduction in the depth of the snow cover where it existed at the close of the preceding week over the northern districts from the Great Lakes westward.

Over northern New England there were moderate increases due to several light falls toward the latter part of the week, and there were very general, but mostly small, increases over the central and southern portions of the mountain areas of the West, a few points in Colorado reporting increases of a foot or more.

The snow-covered area east of the Rocky Mountains is considerably less than reported a week ago, and the important winter-wheat sections in that region are now practically uncovered, and injury has probably resulted from the alternate freezing and thawing over the more northern portions. In the winter-wheat areas of the far Northwest there was considerable melting of snow and some damage resulted to wheat and otherwise from flooding in the lower levels.

Over the more northern portions of the western mountains the snow pack is generally close to or probably somewhat above normal, but otherwise the amounts are generally less, particularly in the Sierra Nevada areas.

Compared with the conditions one year ago, there is now much less snow from the Missouri Valley southeastward to the Middle Atlantic States, but in the upper Lake region, northern New England, and over the western mountain areas the present depths are not materially less.

ICE IN RIVERS AND HARBORS

The absence of important cold during the week materially reduced the amount of ice on the rivers and lakes of all parts of the country save in the extreme northern districts where there were locally small increases.

In the Lake Superior district there was little change from the preceding week, but elsewhere on the harbors of the Great Lakes there were mostly decreases, so little ice now remains.

The rivers of the Ohio Valley continue open, and but little ice exists on the rivers of the Atlantic coast save in the interior and northern portions of New England.

No important harvest of the ice crop has yet begun save in the more northern districts and on small protected ponds.

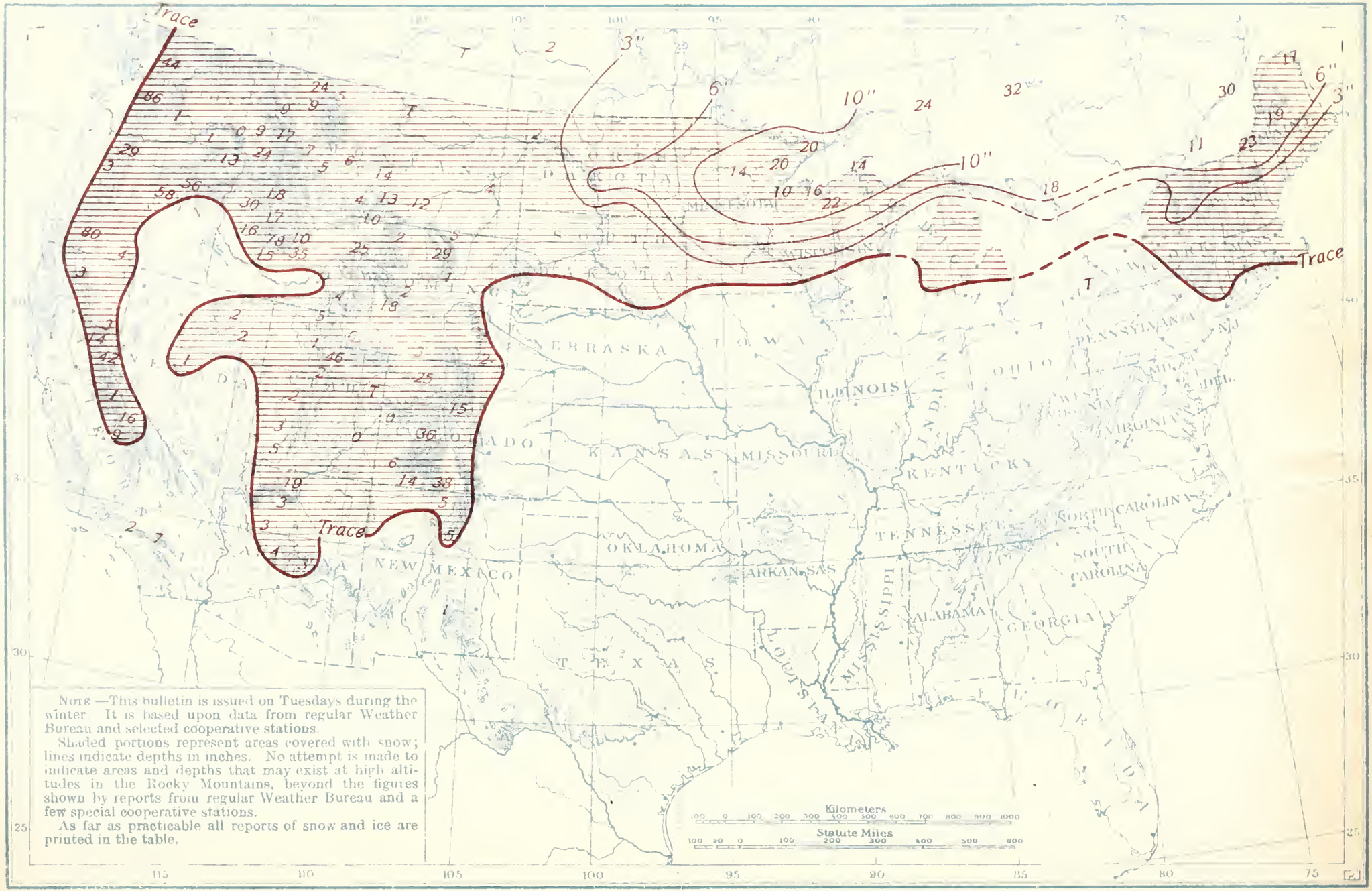
P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., JANUARY 16, 1928

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
Alaska	*Inches*	*Inches*	*New Hampshire*	*Inches*	*Inches*
Bethel	11	.....	Berlin	3	.....
Eagle	11	.....	Concord	1	0.0
Fort Yukon	18	.....	Hanover	1	.....
Nome	20	.....	Pittsburg	23	.....
St. Paul Island	12	.....	*New Mexico*		
Tanana	19	.....	Chama	5	.....
Arizona			Cloudcroft	1	.....
Grand Canyon	3	.....	Gamerco	1	.....
Pinedale	3	.....	Winsors Ranch	5	.....
Prescott	4	.....	*New York*		
Williams	3	.....	Albany	1	0.0
California			Buffalo	0	*
Big Creek	9	.....	Canton	2	.....
Huntington Lake	16	.....	Herkimer	1	.....
McCloud	3	.....	Lake Placid	3	.....
Mount Wilson	2	.....	Malone	4	.....
Sierraville	3	.....	Ogdensburg	2	.....
Colorado			Old Forge	5	.....
Dillon	15	.....	Rome	1	.....
Durango	14	.....	Saranac Lake	3	.....
Rico	6	.....	*North Dakota*		
Steamboat Springs	25	.....	Bismarck	6	22.0
Idaho			Devils Lake	1	.....
Kellogg	9	.....	Williston	2	‡
Ketchum	10	.....	*Oregon*		
McCall	30	.....	Crater Lake	80	.....
Montpelier	4	.....	Detroit	3	.....
Vienna Mine	78	.....	Government Camp	29	.....
Iowa			Imperial Mine	56	.....
Des Moines	0	15.0	Sled Springs	13	.....
Dubuque	0	9.0	*Pennsylvania*		
Sioux City	0	17.0	Erie	0	1.5
Maine			*South Dakota*		
Eastport	2	0.0	Huron	T.	21.0
Gardiner	2	4.0	Pierre	T.	29.0
Greenville	19	18.0	Yankton	T.	16.0
Portland	1	0.0	*Utah*		
Van Buren	17	.....	Cedar City	5	.....
Michigan			Deseret	2	.....
East Tawas	2	.....	Milford	3	.....
Escanaba	6	15.5	Ogden	1	.....
Houghton	14	12.0	Provo	2	.....
Mackinaw	2	.....	Salt Lake City	1	.....
Marquette	15	1.0	Silver Lake	46	.....
Port Huron	T.	2.0	*Vermont*		
Sault Ste. Marie	11	12.0	Brattleboro	0	5.0
Minnesota			Burlington	4	*
Duluth	10	23.0	Northfield	2	.....
Fort Ripley	10	.....	St. Johnsbury	4	.....
Minneapolis	3	.....	*Washington*		
Montevideo	6	.....	Cascade Tunnel	44	.....
Moorhead	6	24.5	Paradise Inn	86	.....
Mora	10	.....	Walla Walla	1	.....
St. Paul	10	*	Yakima	1	.....
Thief River Falls	8	.....	*Wisconsin*		
Virginia	20	.....	Ashland	16	.....
Montana			Green Bay	T.	13.0
Big Timber	13	.....	La Crosse	T.	13.0
Billings	12	.....	Park Falls	22	.....
Bozeman	4	.....	Spooner	13	.....
Browning	5	.....	Wausau	4	16.0
Haugan	17	.....	*Wyoming*		
Helena	6	.....	Alta	25	.....
Loweth	14	.....	Barnum	1	.....
Miles City	4	.....	Cheyenne	2	.....
Missoula	7	.....	Dome Lake	29	.....
Nevada			Evanston	6	.....
Elko	2	.....	Sheridan	5	.....
Hylton	6	.....	South Pass City	18	.....
North Fork	2	.....	Yellowstone Park	10	.....

* Shore ice. † Floating ice. ‡ Ice gorged. § Measurement impracticable.
T. indicates trace.

Depth of Snow on Ground, 8 p. m., January 16, 1928



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SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 7 WASHINGTON, D. C., JANUARY 25, 1928 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

Moderate winter weather again prevailed during the week over the districts from the Rocky Mountains eastward, though the early part was distinetly warm. A moderately eold wave overspread the Great Plains and central districts on Thursday and Friday, extending into the eastern States during Saturday and continuing in the southeastern portions until Sunday, after whieh there was a general reaetion to warmer, partieularly over the Northeastern States, and at the close temperatures were moderate for midwinter in praetieally all distriets.

In the central valleys and most eastern distriets the weekly averages ranged generally from 3° to 10° above the normal, while in the far West the week was moderately eold, especially in the Plateau region.

Temperatures were not particularly low, though the line of freezing reaehed nearly to the Gulf eoast and well into central California, where frosts were frequent, damaging vegetation to some extent and eitrus fruit where unprotected. Only a few loealities in the more northern districts from the Rocky Mountains eastward had temperatures below zero during the week.

As during the preeeding week, precipitation was mainly light, though amounts from one-half to an inch, or slightly more, fell over a eonsiderable area in the middle Mississippi and lower Ohio Valleys, and amounts mainly somewhat less were general from the Great Lakes and upper Ohio Valley eastward.

Over the Great Plains and Roeky Mountain regions there was little precipitation of any kind, and only small amounts occurred over the Pacifie States, exeept along the immediate eoast from central California northward. In portions of Florida drought eontinues, delaying vegetable growth and retarding germination, and over the western part of the Great Plains drought continues.

Generally the week had abundant sunshine, exeept in a few northern loealities and over the immediate west Gulf districts.

DEPTH OF SNOW ON GROUND

But little snow occurred during the week over mueh of the country, henee the snow-eovered area and the depth of eover have not materially changed over those reported a week ago save in small areas. In the Adirondack region of New York and over eentral and northern New England the present depths are materially greater than those of the preceding week, and a few localities in the upper Lake region had moderate increases. On the western slopes of the Roeky Mountains there were some inereases, and in portions of the Sierra Nevada and Caseade Ranges there were local important increases, ranging up to as mueh as 2 feet; but, on the whole, there was little increase in the total area having a eover as eompared with a week ago.

Over mueh of the winter-wheat area from the Roeky Mountains eastward there was no snow eover during the eold wave near the middle of the week, and wheat was subjected to the bad effeets of frequent freezing and thawing. In the far Northwest the wheat had mostly some eover during the eoldest weather.

ICE IN RIVERS AND HARBORS

There were some inereases in the amount of iee on the rivers and lakes where ice existed a week ago, but these were small, as a rule. Some iee formed over the headwaters of the Ohio during the period of greatest cold, but this had praetieally run out by the close. Iee is still absent from the main streams of the Atlantic eoast sections, but eonsiderable iee is now reported on the rivers of New England, reaehing a thiekness of about 20 inehes in central Maine.

No important amount of commereial ice has yet been harvested, but small ponds have probably afforded a eonsiderable amount of iee for local use.

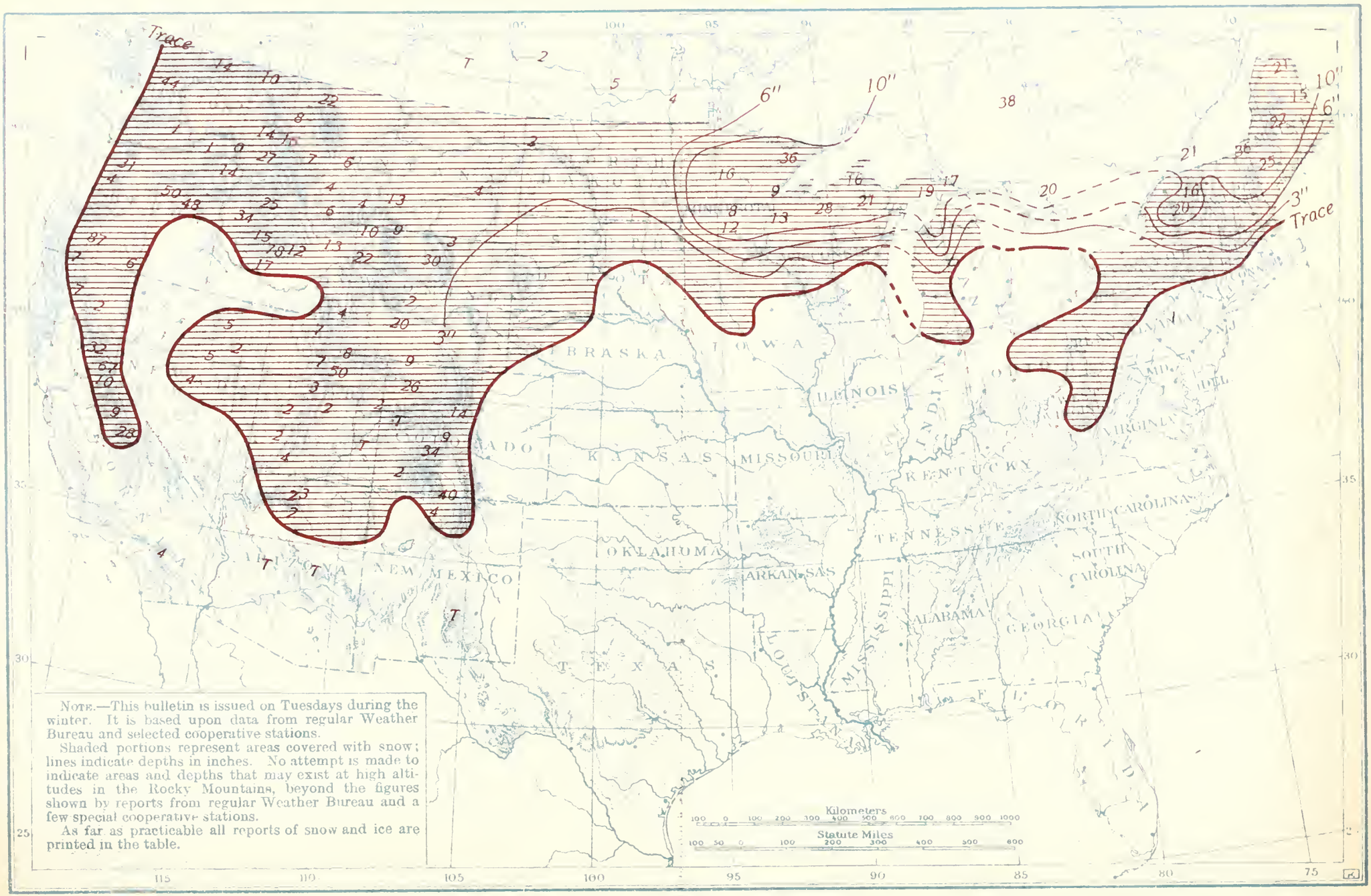
P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., JANUARY 23, 1928

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
Arizona	*Inches*	*Inches*	*Nevada*	*Inches*	*Inches*
Bright Angel	23	.....	Arthur	2	.....
Grand Canyon	2	.....	Austin	4	.....
California			North Fork	5	.....
Huntington Lake	28	.....	*New Hampshire*		
Norden	67	.....	Berlin	21	.....
Sierraville	16	.....	Concord	7	7.0
Yosemite	9	.....	Keene	4	.....
Colorado			Pittsburg	36	.....
Crested Butte	34	.....	*New York*		
Cumbres	40	.....	Alfred	1	.....
Leadville	9	.....	Beaver River	20	.....
Steamboat Springs	26	.....	Canton	4	.....
Idaho			Lake Placid	18	.....
Hailey	9	.....	Malone	8	.....
Idaho City	16	.....	Oswego	2	†
Mackay	1	.....	Rochester	T.	1.5
Pierce City	27	.....	Rome	6	.....
Porthill	10	.....	Saratoga Springs	4	.....
Soldier Creek	17	.....	Watertown	2	.....
Vienna Mine	78	.....	*North Dakota*		
Iowa			Bismarck	3	23.0
Davenport	0	11.5	Williston	2	28.0
Des Moines	0	15.0	*Oregon*		
Dubuque	0	9.0	Fish Lake	26	.....
Keokuk	0	8.0	Harrison Mine	50	.....
Sioux City	0	14.5	Lakeview	6	.....
Maine			Siskiyou	7	.....
Farmington	25	.....	Welches	9	.....
Gardiner	11	8.0	*Pennsylvania*		
Greenville	22	20.0	Franklin	1	.....
Houlton	15	.....	Freeland	1	.....
Millinocket	24	.....	Pittsburgh	T.	†
Portland	10	0.0	Warren	2	.....
Van Buren	21	.....	Wellsboro	1	.....
Massachusetts			*South Dakota*		
Amherst	4	.....	Pierre	T.	29.5
Holyoke	2	.....	Rapid City	1	.....
Michigan			Yankton	0	17.0
Alpena	1	*	*Utah*		
Battle Creek	2	.....	Logan	7	.....
Bloomingdale	2	.....	Manti	2	.....
Cadillac	5	.....	Price	2	.....
Detroit	0	5.0	Provo	3	.....
Escanaba	8	16.0	Salt Lake City	7	.....
Grayling	11	.....	Watson	2	.....
Houghton	16	12.5	*Vermont*		
Humboldt	21	.....	Bellows Falls	7	.....
Ironwood	28	.....	Burlington	4	*
Ludington	1	.....	Northfield	8	.....
Mackinaw	10	.....	Rutland	6	.....
Newberry	19	.....	White River Junction	8	*
Sault Ste. Marie	17	14.0	*Washington*		
Minnesota			Cascade Tunnel	44	.....
Collegeville	12	.....	Laurier	14	.....
Duluth	9	23.0	Yakima	1	.....
Ely	36	.....	*West Virginia*		
Grand Meadow	2	.....	Bayard	4	.....
Leech Lake Dam	16	.....	Elkins	T.	0.0
Mankato	1	.....	*Wisconsin*		
Moorhead	5	25.5	Ashland	17	.....
Roseau	4	.....	Green Bay	T.	14.5
St. Paul	10	1.5	Stevens Point	3	.....
Montana			Wausau	4	16.0
Belton	22	.....	*Wyoming*		
Havre	1	.....	Casper	1	.....
Helena	6	.....	Cheyenne	1	.....
Kalispell	9	.....	Dome Lake	30	.....
Miles City	4	.....	Lander	2	.....
Red Lodge	9	.....	Sheridan	3	.....
Thompson Falls	8	.....	Yellowstone Park	10	.....

*Shore ice. †Floating ice. ‡Ice gorged. § Measurement impracticable.
T. indicates trace.

Depth of Snow on Ground, 8 p. m., January 23, 1928



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SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 8 WASHINGTON, D. C., FEBRUARY 1, 1928 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

Considerable precipitation occurred on Tuesday and Wednesday from the Mississippi Valley eastward to the Atlantic coast, though mostly as rain save in the more northern districts and in eastern Canada. Aside from the above, no important snow or rain occurred in any part of the country until Saturday when snow set in over a small area near the Chesapeake Bay region and continued throughout most of the day, the falls being unusually heavy and attended by high winds and much drifting over the eastern portion of Virginia and thence northward to eastern Pennsylvania, continuing into southern New England and westward to the lower Lakes and upper Ohio Valley during the following day, though with lessened severity.

Some light snow occurred in the upper Lake region and lower Ohio Valley on Sunday, and some rain or snow occurred during Monday from the upper Mississippi Valley westward.

At the morning observation of Tuesday light rain or snow was falling over a limited area from northern Louisiana and central Mississippi northeastward to the middle Atlantic coast.

The temperatures were distinctly lower than normal over the districts from the Mississippi Valley eastward, particularly so in the Great Lakes region, Ohio Valley, and in the Southeast. Elsewhere the average temperatures for the week were mainly above normal, and it was unusually warm for the end of January over the upper Missouri Valley and far Northwest.

Minimum temperatures of freezing or lower extended into central Florida and over the east coast as far south as Miami.

The total precipitation was mainly light over the interior and western portions, save over the coast districts from central California northward where the weekly amounts ranged from about one-half to slightly more than 1 inch. From the middle Mississippi Valley eastward to the coast and northeastward to the Lake region and New England the precipitation was in many cases slightly in excess of 1 inch.

Sunshine was generally abundant over the interior and southeastern portions of the country.

DEPTH OF SNOW ON GROUND

Over the central and eastern districts, save in central and northern New England, there was a general increase in the depth of the snow cover ranging from less than 1 inch over most of the northern Plains and upper Mississippi Valley to several inches in the Lake region, and up to 5 or 10 inches in portions of Maryland, eastern Pennsylvania, and New Jersey.

In central and northern New England decreases in depth up to 10 inches occurred during the week, and there were important reductions generally from the Rocky Mountains westward to the Sierra and Cascade Ranges, save in the northern Plateau where increases, though mostly small, were rather general. In the mountains of northeastern Oregon increases ranged up to a foot.

A considerable area from northeastern Kansas to southeastern South Dakota eastward to the Atlantic coast, bare a week ago, now has a slight cover as far eastward as the Ohio Valley and a considerable cover over the districts farther east.

The week was rather unfavorable for wheat and grass over the districts from the Rocky Mountains eastward owing to cold and general absence of snow protection.

ICE IN RIVERS AND HARBORS

There was a general increase in the amount of ice over that reported a week ago over the more northern districts and slight increase to the southward. No important amount has yet accumulated on the main streams of the Atlantic coast save in New England. The commercial ice harvest has begun in New York and portions of New England.

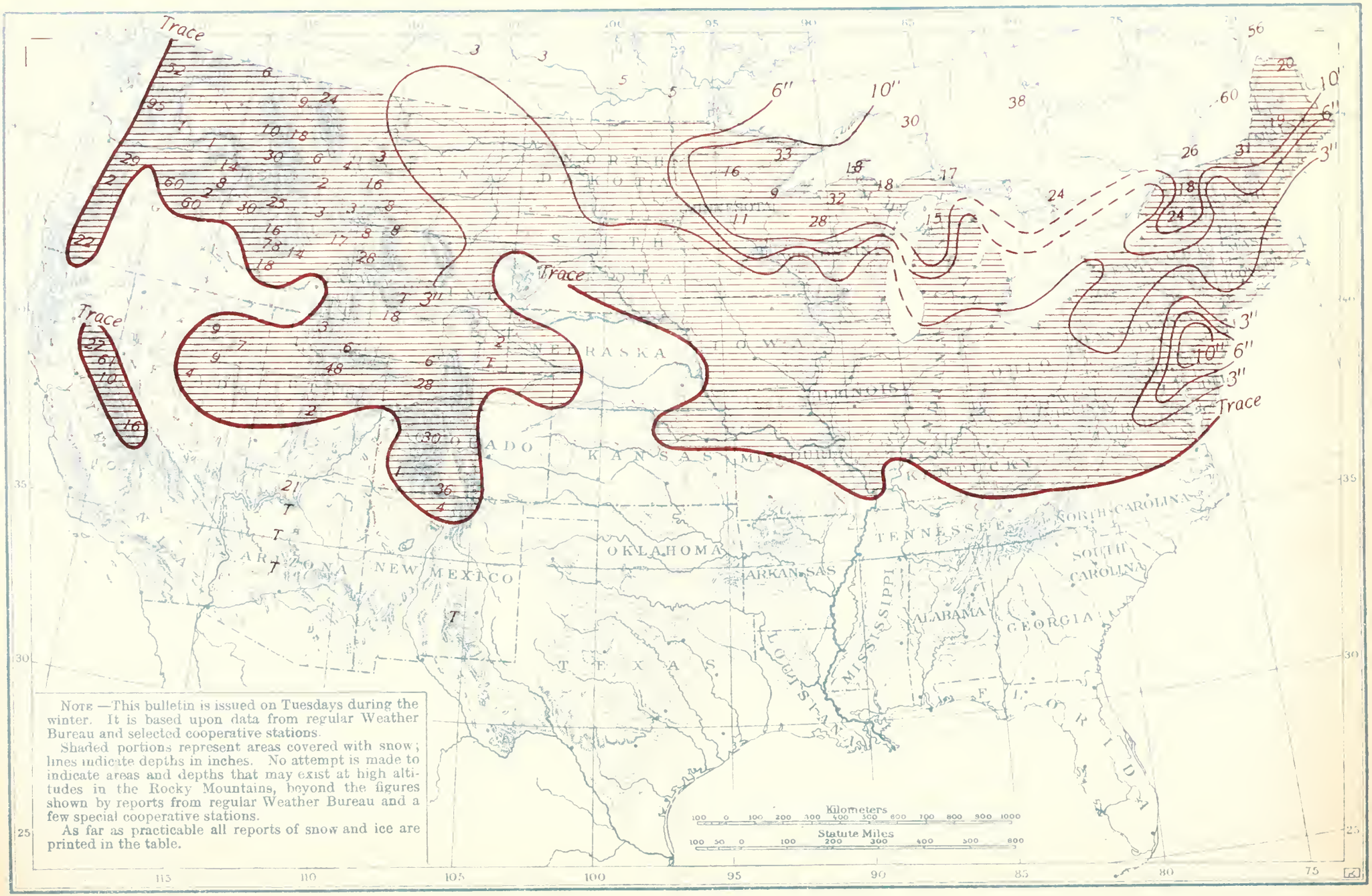
P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., JANUARY 30, 1928

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
California	*Inches*	*Inches*	*New Jersey*	*Inches*	*Inches*
Macumber	10	.....	Atlantic City	8	.....
Norden	61	.....	Bridgeton	4	.....
Relief	22	.....	Cape May	4	.....
Connecticut			Lakewood	11	.....
Hartford	4	*	Phillipsburg	9	.....
New Haven	2	0.0	*New York*		
West Cornwall	1	.....	Albany	3	*
District of Columbia			Buffalo	4	5.0
Washington	7	3.0	Cutchogue	2	.....
Idaho			Herkimer	7	.....
Hailey	10	.....	Ithaca	3	.....
Kirkham	16	.....	New York	2	0.0
McCall	30	.....	Ogdensburg	4	.....
Porthill	6	.....	Poughkeepsie	3	.....
Spencer	17	.....	Rochester	5	3.5
Illinois			Saranac Lake	18	.....
Freeport	1	.....	Syracuse	3	.....
Peoria	1	5.0	*North Dakota*		
Indiana			Bismarck	4	25.0
Columbus	2	.....	Williston	2	31.0
Indianapolis	1	.....	*Ohio*		
Madison	2	.....	Chillicothe	1	.....
Royal Center	3	.....	Cincinnati	T.	†
Iowa			Cleveland	1	8.0
Charles City	1	.....	Toledo	1	6.0
Davenport	1	12.0	Wauseon	1	.....
Estherville	2	.....	*Oregon*		
Iowa City	1	.....	Baker	2	.....
Sioux City	T.	13.5	Government Camp	29	.....
Kentucky			Imperial Mine	60	.....
Beattyville	2	.....	*Pennsylvania*		
Eubank	2	.....	Confluence	2	.....
Lexington	2	.....	Emporium	3	.....
Maine			Holtwood	12	.....
Eastport	4	0.0	Mifflintown	2	.....
Gardiner	T.	10.0	Parkers Landing	4	.....
Greenville	19	25.0	Philadelphia	9	†
Van Buren	20	.....	Reading	11	0.0
Maryland			Scranton	3	.....
Baltimore	8	0.0	Warren	3	.....
Princess Anne	1	.....	*Rhode Island*		
Massachusetts			Block Island	1	0.0
Boston	2	0.0	Kingston	2	.....
Concord	2	.....	Providence	2	0.0
Nantucket	4	0.0	*Vermont*		
Michigan			Brattleboro	4	11.0
Iron Mountain	11	.....	Burlington	1	*
Mackinaw	12	.....	Northfield	5	.....
Marquette	18	4.0	*Virginia*		
Port Huron	4	8.0	Culpeper	3	.....
Minnesota			Fredericksburg	4	.....
Duluth	9	24.5	Lynchburg	1	†
Fort Ripley	8	.....	Richmond	2	0.0
Minneapolis	3	.....	*Washington*		
Mora	10	.....	Cascade Tunnel	52	.....
Missouri			Paradise Inn	95	.....
Columbia	1	.....	Walla Walla	1	.....
Hannibal	T.	*†	*West Virginia*		
Kansas City	T.	†	Bluefield	4	.....
St. Louis	1	†	Elkins	1	0.0
Montana			Parkersburg	T.	†
Bozeman	3	.....	*Wisconsin*		
Haugan	18	.....	Eau Claire	2	.....
Helena	4	.....	Madison	1	.....
Kalispell	9	.....	Medford	11	.....
Red Lodge	8	.....	Wausau	6	17.5
New Hampshire			*Wyoming*		
Concord	1	12.0	Alta	28	.....
Hanover	4	.....	Evanston	6	.....
Pittsburg	31	.....	Sheridan	5	.....

* Shore ice. † Floating ice. ‡ Ice gorged. § Measurement impracticable.
T. indicates trace.

Depth of Snow on Ground, 8 p. m., January 30, 1928



Note.—This bulletin is issued on Tuesdays during the winter. It is based upon data from regular Weather Bureau and selected cooperative stations.

Shaded portions represent areas covered with snow; lines indicate depths in inches. No attempt is made to indicate areas and depths that may exist at high altitudes in the Rocky Mountains, beyond the figures shown by reports from regular Weather Bureau and a few special cooperative stations.

As far as practicable all reports of snow and ice are printed in the table.

SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 9 WASHINGTON, D. C., FEBRUARY 8, 1928 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

The first week of February, 1928, was mainly without the important weather changes or the severe conditions that may be expected at this period of the winter. Moderate temperatures for winter prevailed over practically all sections, and readings below zero were confined to the extreme Northern States from North Dakota to New England. Freezing temperatures occurred southward to the central portions of the Gulf States, but did not reach the important early trucking regions.

The weekly means of temperature were above normal over all parts of the country save the Northeastern States where the week was slightly colder than normal. Over the Great Plains and Rocky Mountain regions the weekly averages were markedly high, ranging from 10° to nearly 20° above the normal.

Precipitation was again light over the Rocky Mountain and Plateau regions, and but little rain or snow occurred over the Atlantic coast districts and upper Lake region. In the Mississippi Valley, the eastern portions of the Great Plains from the middle Missouri Valley southward to eastern Texas, and over the middle Gulf States there were good falls, and considerable rain or snow occurred in the far Southwest where it was locally badly needed.

Snow occurred on several dates in the Lake region and to the eastward during the early part of the week, but the amounts were small, and more or less snow, depending upon the altitude, occurred during the latter part of the week over the Southwest. At the close considerable cloudy, rainy weather, changing to snow over the more northern districts, prevailed in the central valleys and the Southeast.

DEPTH OF SNOW ON GROUND

Compared with the preceding week, there was a general reduction in the depth of the snow cover where any existed at the close over practically all portions of the country from the Rocky Mountains eastward, and at the lower levels to the westward, though in the higher levels of the western mountains there were rather general increases, this being particularly the case in the high mountains of California and Washington, and to a less degree in the mountains from Colorado and Utah southward.

The considerable body of snow on ground at the beginning of the week over the middle Atlantic coast section had practically dissappeared by the close, and there was a general reduction of from 2 to 5 inches in the cover from North Dakota eastward to Upper Michigan and from Lower Michigan eastward to New York and western New England. In the western mountain districts there were generally slight reductions over the northern portions save at the higher elevations, while in the southern portions the higher elevations gained slightly in depth and considerably locally in the Sierra Nevada of California.

Compared with the normal, there is mainly less snow on the ground than usual at this period of the winter in nearly all parts of the country. The winter-wheat districts east of the Rocky Mountains were mostly without snow cover during the week, and over the southern sections were subjected to frequent freezing and thawing and doubtless suffered further damage by heaving.

ICE IN RIVERS AND HARBORS

There were slight increases in the amounts of ice over the more northern streams and lakes, and some reductions to the southward, but no important changes, save that the fairly heavy ice in the Missouri in the vicinity of Yankton, S. Dak., and Sioux City, Ia., broke up and some gorging occurred.

Commercial ice harvest has begun in New York and New England, and is in operation over other northern districts.

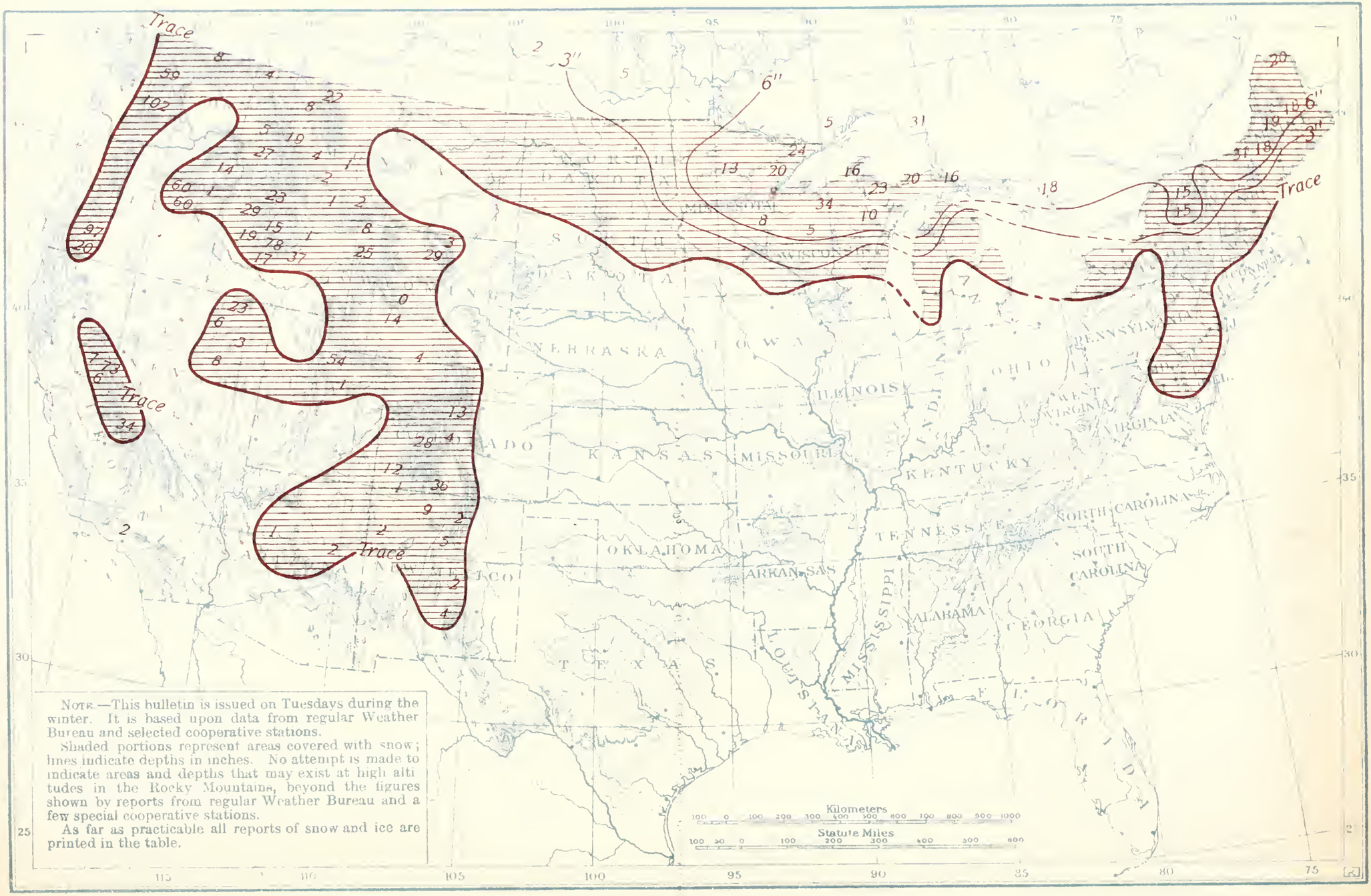
P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., FEBRUARY 6, 1928

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
Alaska	*Inches*	*Inches*	*New Hampshire*	*Inches*	*Inches*
Bethel	13	.....	Berlin	8	.....
Cordova	9	.....	Concord	0	13.0
Eagle	9	.....	Pittsburg	31	.....
Nome	37	.....	*New Mexico*		
St. Paul Island	10	.....	Chama	9	.....
Tanana	19	.....	Cloudcroft	4	.....
Arizona			Corona	2	.....
Grand Canyon	T.	.....	Gamerco	2	.....
Pinedale	2	.....	Santa Fe	5	.....
Williams	1	.....	Taos	2	.....
California			*New York*		
Huntington Lake	34	.....	Albany	T.	4.0
Mount Wilson	2	.....	Alfred	1	.....
Norden	73	.....	Beaver River	15	.....
Squirrel Inn	2	.....	Buffalo	T.	6.0
Colorado			Canton	2	.....
Crested Butte	28	.....	Lake Placid	10	.....
Cumbres	36	.....	Lowville	5	.....
Dillon	13	.....	Malone	6	.....
Durango	1	.....	Old Forge	18	.....
Leadville	4	.....	Oswego	4	2.5
Rico	12	.....	Plattsburg	4	.....
Idaho			*North Dakota*		
Idaho City	19	.....	Bismarck	3	25.0
Kellogg	5	.....	Devils Lake	T.	.....
Ketchum	18	.....	Ellendale	T.	.....
Mascot Mine	37	.....	Williston	T.	30.0
Soldier Creek	17	.....	*Ohio*		
Vienna Mine	78	.....	Cleveland	0	10.0
Iowa			Sandusky	0	9.0
Des Moines	0	13.5	Toledo	0	7.0
Dubuque	0	12.0	*Oregon*		
Keokuk	0	4.5	Crater Lake	97	.....
Maine			Fish Lake	20	.....
Gardiner	T.	13.0	Harrison Mine	60	.....
Greenville	19	27.0	Sled Springs	14	.....
Millinocket	18	.....	Wallowa	5	.....
Michigan			*Pennsylvania*		
Alpena	T.	10.0	Erie	T.	7.0
Benzonia	7	.....	Freeland	3	.....
Bloomingdale	2	.....	Harrisburg	T.	5.0
East Jordan	10	.....	West Chester	4	.....
Escanaba	9	19.0	*South Dakota*		
Houghton	16	15.0	Huron	T.	22.0
Humboldt	23	.....	*Utah*		
Ironwood	34	.....	Duchesne	1	.....
Ludington	2	.....	Logan	T.	.....
Newberry	20	.....	Price	T.	.....
Sault Ste. Marie	16	17.0	Silver Lake	54	.....
Minnesota			*Vermont*		
Duluth	8	27.5	Brattleboro	0	14.0
Ely	24	.....	Northfield	4	.....
Grand Meadow	1	.....	St. Johnsbury	8	.....
Leech Lake Dam	13	.....	White River Junction	1	†
Moorhead	4	29.0	*Washington*		
Roseau	3	.....	Cascade Tunnel	59	.....
St. Paul	4	*	Laurier	8	.....
Montana			Paradise Inn	102	.....
Belton	22	.....	*Wisconsin*		
Dillon	1	.....	Green Bay	1	16.0
Haugan	19	.....	La Crosse	0	17.0
Helena	1	.....	Medford	5	.....
Missoula	4	.....	Park Falls	24	.....
Philipsburg	2	.....	Stevens Point	2	.....
Thompson Falls	4	.....	*Wyoming*		
Nevada			Alta	25	.....
Arthur	3	.....	Dixon	4	.....
Gold Creek	23	.....	Dome Lake	29	.....
Hylton	8	.....	Sheridan	3	.....
North Fork	6	.....	Yellowstone Park	8	.....

*Shore ice. †Floating ice. ‡Ice gorged. § Measurement impracticable.
T. indicates trace.

Depth of Snow on Ground, 8 p. m., February 6, 1928



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As far as practicable all reports of snow and ice are printed in the table.

SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 10 WASHINGTON, D. C., FEBRUARY 15, 1928 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

The second week of February was again warm over the greater part of the country; in fact, generally warmer than the preceding week save locally in the Southwest and small portions of the middle Plateau where the weekly means were slightly lower than normal and materially lower than the preceding week. Over the area from the middle and northern Rocky Mountains eastward to the Great Lakes and Ohio Valley the weekly temperatures ranged from 5° to near 25° above the normals, the greatest departures occurring over the Dakotas and near-by areas. No temperatures below freezing occurred south of the northern portions of the Gulf States, and below-zero temperatures occurred at only a few points in the far northern districts.

The week began with rather widespread and locally heavy precipitation over the central valleys, extending eastward to the Atlantic coast during the next two days, with snows along the northern border from the upper Lakes to New England.

Generally fair weather prevailed during the remainder of the week until Sunday when precipitation began in the Southwest, and by Monday morning had extended into most districts from the middle Plains southeastward to Georgia and northern Florida.

During the following 24 hours the rain area advanced into the Great Lakes, the Ohio Valley, and to the Middle Atlantic States, and more or less snow was falling in the upper Mississippi Valley and northern Lake region.

Precipitation for the week was moderate, but sufficient for present needs over nearly the entire eastern half of the country, amounting to from 1 to 2 inches along the Atlantic coast from central Florida to southern New England. Beneficial snows or rains occurred locally over the Southwest.

From the upper Mississippi Valley westward and southwestward to southern California there was again but little precipitation save in the far Northwest, and even there the amounts were mainly much less than normal.

DEPTH OF SNOW ON GROUND

Compared with the preceding week, there is now less snow over most western districts, particularly in the mountains of the Plateau district and near-by areas, where locally streams are high due to rapid melting of the snow cover at the higher elevations. Some increases are noted in the depth in the higher elevations of western Washington and also in the middle Rocky Mountains, and a light cover has recently fallen on the Great Plains from the Texas Panhandle to eastern Nebraska. Slight increases are reported over portions of the Lake region and the mountain districts from West Virginia to northern New England. Elsewhere there were mainly slight reductions.

The extent of the snow-covered area remains similar to that prevailing at the beginning of the week, save a larger area is now uncovered in the mountain districts of the West, though in some southern localities there is a slight increase.

A considerable area in the middle Plains, bare a week ago, now has some cover, but elsewhere changes were not important.

Frequent freezing and thawing occurred over the far northwestern winter-wheat area and some damage is reported, and the week was unfavorable from the same cause over much of the southern winter-wheat area east of the Rocky Mountains.

ICE IN RIVERS AND HARBORS

No important changes have occurred in the ice conditions on the rivers and lakes of the country, though there have been general reductions on practically all rivers where ice existed previously, save in New England. On the Great Lakes no important changes are reported, decreases and increases occurring about equally.

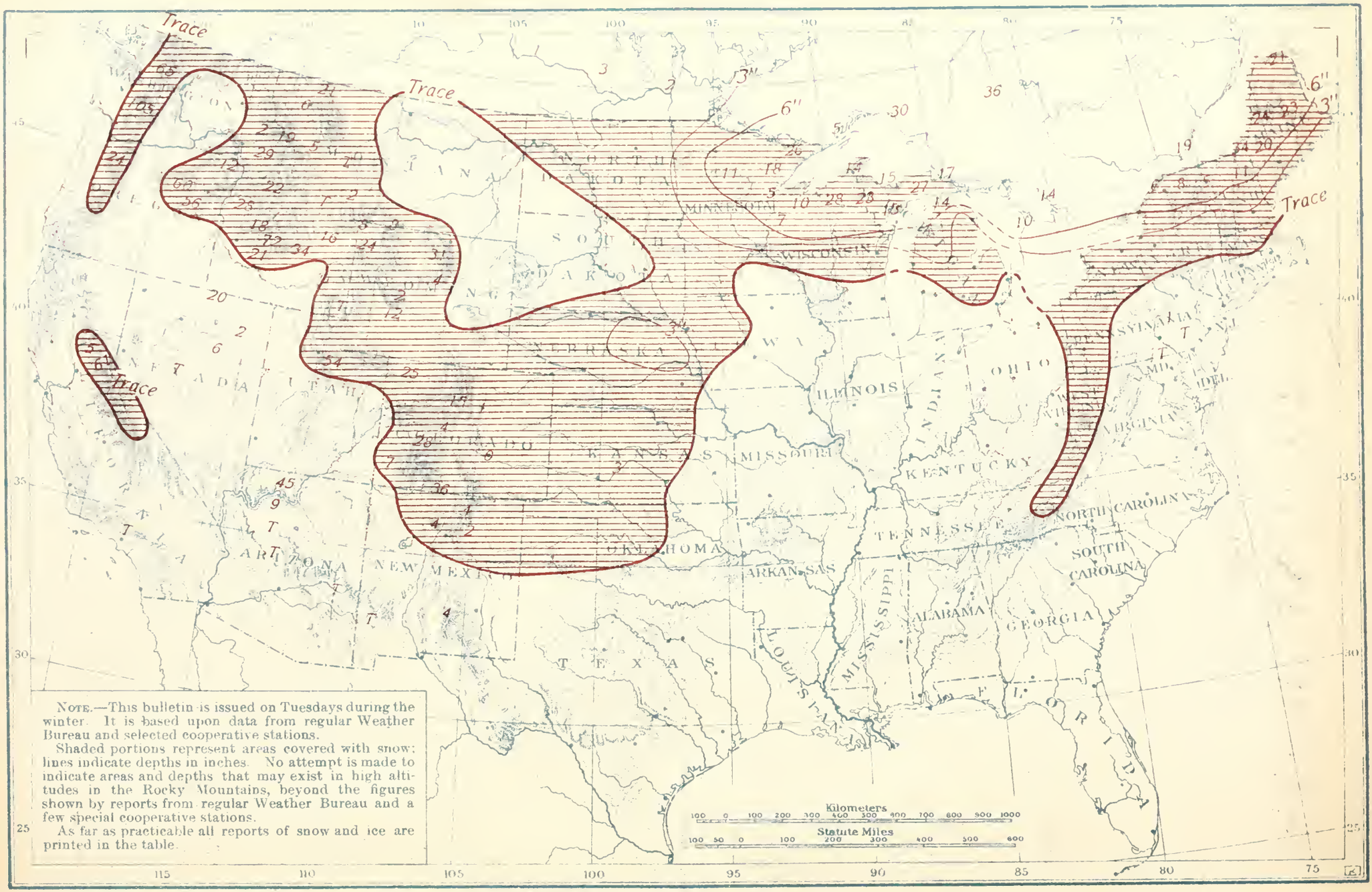
P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., FEBRUARY 13, 1928

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
Arizona	*Inches*	*Inches*	*Nebraska*	*Inches*	*Inches*
Bright Angel	45	.....	Broken Bow	3	.....
Grand Canyon	9	.....	Grand Island	2	.....
Prescott	T.	.....	Imperial	2	.....
California		.....	McCook	1	.....
Macumber	5	.....	North Platte	1	.....
Norden	61	.....	Omaha	3	†
Colorado			O'Neill	4	.....
Cumbres	36	.....	Tekamah	3	.....
Denver	1	.....	*New Hampshire*		
Dillon	15	.....	Concord	3	13.0
Leadville	4	.....	Hanover	2	.....
Rico	7	.....	Keene	3	.....
Steamboat Springs	25	.....	Pittsburg	34	.....
Idaho			*New Mexico*		
Big Creek	23	.....	Cloudcroft	4	.....
Hailey	12	.....	Elizabethtown	4	.....
McCall	28	.....	Truchas	4	.....
Mackay	1	.....	*New York*		
Pierce City	29	.....	Alfred	1	.....
Shake Creek	21	.....	Delhi	1	.....
Spencer	16	.....	Jamestown	3	.....
Vienna Mine	72	.....	Malone	8	.....
Iowa			Ogdensburg	6	.....
Atlantic	1	.....	Oswego	3	5.5
Carroll	1	.....	Rochester	1	8.0
Davenport	0	†	Watertown	4	.....
Des Moines	0	12.5	*North Carolina*		
Estherville	1	.....	Asheville	T.	.....
Pocahontas	1	.....	*North Dakota*		
Sioux City	T.	†	Bismarck	2	24.0
Kansas			Williston	T.	26.0
Concordia	2	.....	*Oregon*		
Dodge City	1	.....	Government Camp	24	.....
Dresden	2	.....	Imperial Mine	56	.....
Larned	3	.....	Sled Springs	12	.....
Maine			*Pennsylvania*		
Eastport	2	0.0	Confluence	2	.....
Gardiner	4	14.0	Erie	T.	7.0
Greenville	24	29.0	Harrisburg	T.	4.0
Houlton	10	.....	Johnstown	1	.....
Portland	1	0.0	Parkers Landing	1	.....
Van Buren	21	.....	Warren	1	.....
Michigan			*South Dakota*		
Alma	1	.....	Huron	0	20.0
Bad Axe	1	.....	Pierre	0	*
Cadillac	6	.....	Yankton	2	*
Ewen	20	.....	*Texas*		
Grayling	11	.....	Amarillo	2	.....
Houghton	14	12.0	*Vermont*		
Mackinaw	14	.....	Bellows Falls	2	.....
Marquette	15	4.0	Brattleboro	2	12.0
Port Huron	0	12.0	Burlington	5	5.0
Saginaw	1	.....	Rutland	2	.....
Sault Ste. Marie	17	17.5	*Washington*		
Minnesota			Cascade Tunnel	65	.....
Collegeville	4	.....	Paradise Inn	105	.....
Duluth	5	26.0	*West Virginia*		
Fort Ripley	4	.....	Bayard	6	.....
Minneapolis	3	.....	Elkins	T.	0.0
Moorhead	T.	27.0	*Wisconsin*		
Mora	5	.....	Ashland	10	.....
Roseau	2	.....	Medford	8	.....
Thief River Falls	8	.....	Spooner	7	.....
Virginia	18	.....	Wausau	3	17.0
Montana			*Wyoming*		
Bozeman	2	.....	Alta	24	.....
Kalispell	6	.....	Dome Lake	31	.....
Loweth	2	.....	Lander	2	.....
Missoula	5	.....	Sheridan	1	.....
Red Lodge	8	.....	South Pass City	12	.....

* Shore ice. † Floating ice. ‡ Ice gorged. § Measurement impracticable.
T. indicates trace.

Depth of Snow on Ground, 8 p. m., February 13, 1928



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SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 11 WASHINGTON, D. C., FEBRUARY 23, 1928 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

The general rainy or snowy conditions existing at the beginning of the week over the central valleys and most eastern districts moved to New England by Wednesday morning, with important precipitation over the Northeastern States. This was followed by unsettled conditions locally to eastward of the Rocky Mountains for several days, finally assuming a cyclonic form, embracing most districts from the Mississippi River eastward and causing heavy local rains over portions of the Atlantic Coast States, with more or less snow over a wide area from the middle Gulf States northward to the Great Lakes and northeastward to New England.

Some snow occurred over the more northern districts from the Dakotas eastward to New England during the latter part of the week, but at the close generally clear weather existed over the greater part of the country.

The precipitation for the week was moderate over an extensive area from Texas eastward to the Atlantic coast and northeastward to the Great Lakes and north Atlantic coast. In other districts little or no precipitation occurred, and there was a marked deficiency as compared with the normal over the far Northwest.

As has been the case for several weeks, the average weekly temperatures continued above the normal over the upper Missouri Valley, and it was moderately warm, as a whole, over the Northeastern States. Elsewhere the week averaged colder than normal, and decidedly so from the Ohio Valley southward to the Gulf and over much of the Southwest, where the averages ranged from 5° to 10° below normal.

Freezing temperatures toward the latter part of the week extended southward to central Florida, and about the same time readings below zero occurred over the more northern districts from eastern North Dakota to northern New England.

DEPTH OF SNOW ON GROUND

Compared with the preceding week, the depth of snow on ground increased from 2 to 6 inches over a considerable area from Iowa and Minnesota eastward to the Atlantic coast, and moderate falls occurred in the southwestern mountain sections and over portions of the adjacent Great Plains near the beginning of the week, but much of it melted before the close. Light snow was rather general over the northern portions of the Rocky Mountain region, and there was a rather wide fall of snow about Friday and Saturday from the middle Gulf States northward to the Great Lakes and northeastward to New England, but much of this melted during the following few days over the more southern sections. Elsewhere in the regions where snow usually falls at this period of the year there was little or no snow, this being particularly the case in the mountains of California and near-by States.

The snow-covered area, as compared with the preceding week, is considerably greater, as a large area from Iowa eastward and southeastward to and over the Ohio Valley, bare a week ago, now has a moderate cover; also a considerable area in central and eastern Pennsylvania and near-by areas, bare a week ago, has a moderate cover.

Conditions over the Ohio Valley continued unfavorable for wheat, as has been the case for a considerable part of the winter on account of frequent freezings and thawings without important snow protection, and indications point to material winter-killing.

ICE IN RIVERS AND HARBORS

Only slight changes occurred in the ice conditions as compared with the preceding week, and the ice harvest is approaching completeness in most districts.

P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., FEBRUARY 20, 1928

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
California	*Inches*	*Inches*	*New Hampshire*	*Inches*	*Inches*
Macumber	3	.....	Berlin	6	.....
Norden	52	.....	Concord	5	13.0
Colorado			Durham	5	.....
Crested Butte	26	.....	Keene	4	.....
Dillon	16	.....	*New York*		
Steamboat Springs	28	.....	Albany	3	*
Connecticut			Binghamton	4	.....
Hartford	3	*†	Buffalo	2	8.0
New Haven	2	0.0	Cutchogue	3	.....
West Cornwall	8	.....	Fredonia	2	.....
Idaho			Herkimer	2	.....
Idaho City	18	.....	Ithaca	4	.....
Ketchum	16	.....	New York	1	0.0
Soldier Creek	16	.....	Norwich	2	.....
Vienna Mine	56	.....	Oswego	3	†
Illinois			Poughkeepsie	2	.....
Chicago	5	.....	Saranac Lake	18	.....
Freeport	2	.....	Saratoga Springs	3	.....
Indiana			Warwick	6	.....
Cambridge City	2	.....	*North Dakota*		
Fort Wayne	5	.....	Bismarck	1	24.0
Lafayette	2	.....	*Ohio*		
Notre Dame	6	.....	Beverly	2	.....
Iowa			Columbus	1	0.0
Des Moines	T.	14.0	Sandusky	1	8.0
Dubuque	T.	†	Toledo	2	1.0
Forest City	1	.....	Wooster	4	.....
Iowa Falls	3	.....	Zanesville	4	.....
Keokuk	0	2.5	*Oregon*		
Waterloo	1	.....	Crater Lake	95	.....
Maine			Harrison Mine	63	.....
Eastport	5	0.0	Wallowa	5	.....
Farmington	10	.....	*Pennsylvania*		
Greenville	22	29.0	Beaver Falls	1	.....
Millinocket	23	.....	Emporium	3	.....
Portland	7	0.0	Franklin	2	.....
Van Buren	23	.....	Martin	3	.....
Massachusetts			Pittsburgh	4	0.0
Amherst	4	.....	Scranton	5	.....
Boston	3	0.0	Towanda	6	.....
Concord	8	.....	Williamsport	3	.....
Williamstown	5	.....	*Rhode Island*		
Michigan			Block Island	2	0.0
Alpena	4	14.0	Providence	3	0.0
Ann Arbor	2	.....	*Utah*		
Battle Creek	4	.....	Manti	T.	.....
Escanaba	12	20.0	Silver Lake	53	.....
Grand Rapids	4	.....	*Vermont*		
Humboldt	24	.....	Brattleboro	5	14.0
Iron Mountain	9	.....	Northfield	4	.....
Marquette	19	2.0	St. Johnsbury	8	.....
Port Huron	1	14.0	White River Junction	2	.....
Sault Ste. Marie	20	18.5	*Washington*		
Minnesota			Cascade Tunnel	54	.....
Duluth	6	27.5	Laurier	6	.....
Ely	16	.....	*West Virginia*		
Mankato	2	.....	Bayard	9	.....
St. Paul	2	†	Clarksburg	2	.....
Montana			Elkins	3	0.0
Miles City	1	.....	Fairmont	2	.....
Missoula	4	.....	Wheeling	2	.....
Red Lodge	8	.....	*Wisconsin*		
Nebraska			Green Bay	1	14.5
Norfolk	3	.....	Madison	4	.....
Omaha	T.	†	Park Falls	20	.....
Nevada			Racine	5	.....
Arthur	1	.....	*Wyoming*		
Gold Creek	24	.....	Evanston	4	.....
Hylton	4	.....	Newcastle	3	.....
North Fork	4	.....	Yellowstone Park	9	.....

*Shore ice. †Floating ice. ‡Ice gorged. § Measurement impracticable.
T. indicates trace.

Depth of Snow on Ground, 8 p. m., February 20, 1928

Note.—This bulletin is issued on Tuesdays during the winter. It is based upon data from regular Weather Bureau and selected cooperative stations.

Shaded portions represent areas covered with snow; lines indicate depths in inches. No attempt is made to indicate areas and depths that may exist in high altitudes in the Rocky Mountains, beyond the figures shown by reports from regular Weather Bureau and a few special cooperative stations.

As far as practicable all reports of snow and ice are printed in the table.

SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 12 WASHINGTON, D. C., FEBRUARY 29, 1928 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

The week opened with fair weather and moderate winter temperatures over practically all portions of the country, but by Wednesday morning a cyclone of considerable proportions had moved to Colorado and light snows or rains had fallen over an extensive area from the North Pacific States eastward to the upper Lakes, and some heavy rains were reported locally in Arkansas and eastern Texas, with lighter amounts over other near-by areas from the southern Plains eastward to the middle Gulf States. At the same time a decided fall in temperature had occurred over the upper Missouri Valley and near-by areas in the United States and Canada.

By Thursday precipitation had extended into all eastern districts, heavy rains occurring over portions of the east Gulf and South Atlantic States and light snows continued locally in the more northern sections from the Rocky Mountains to the upper Lakes, and had extended into northern New England and the Canadian Maritime Provinces.

By Friday morning the precipitation had generally ceased in practically all districts and cold weather had advanced into the central valleys and eastward to the Appalachian Mountains, with freezing temperatures as far south as central Texas. The latter half of the week was generally fair and moderately low winter temperatures prevailed over practically all districts.

For the week, as a whole, the temperatures were below normal in practically all sections from the Rocky Mountains eastward, the negative departures from the weekly normals ranging from 4° to 10° over the Gulf States and thence northward to the Great Lakes, and from 8° to 16° from Texas northwestward to central Montana. In other districts the weekly temperatures were near normal, a few points along the immediate Pacific coast, in eastern North Dakota, and over southern Florida having means slightly above normal.

The weekly amounts of precipitation were comparatively heavy over portions of eastern Texas, and similar falls occurred over the Gulf and South Atlantic States, while amounts otherwise from the Mississippi River eastward were mainly sufficient.

As has been the case for a number of weeks, the precipitation continued light and mostly insignificant from the Great Plains westward, save along the Pacific coast where the amounts were larger, but still far below the normal.

DEPTH OF SNOW ON GROUND

There was a general, but usually small increase in the snow depths during the week over the Rocky Mountain States, the northern Plateau, and in the mountains from northern California to Washington, some points in Oregon having increases up to a foot. There were likewise moderate increases in the upper Mississippi Valley and eastward to northern Michigan. Elsewhere there were general decreases, particularly from northern Illinois and southern Wisconsin eastward to southern New England where the cover is now from 2 to 6 inches less than a week ago. The continued absence of an adequate supply of packed snow in the mountains of California is causing some anxiety.

Frequent freezing and thawing over the principal winter wheat districts from the Rocky Mountains eastward point to further damage.

ICE IN RIVERS AND HARBORS

No important changes occurred in the ice conditions, though there were mainly slight increases in the amounts reported a week ago over most northern districts. Conditions continued favorable for ice harvesting.

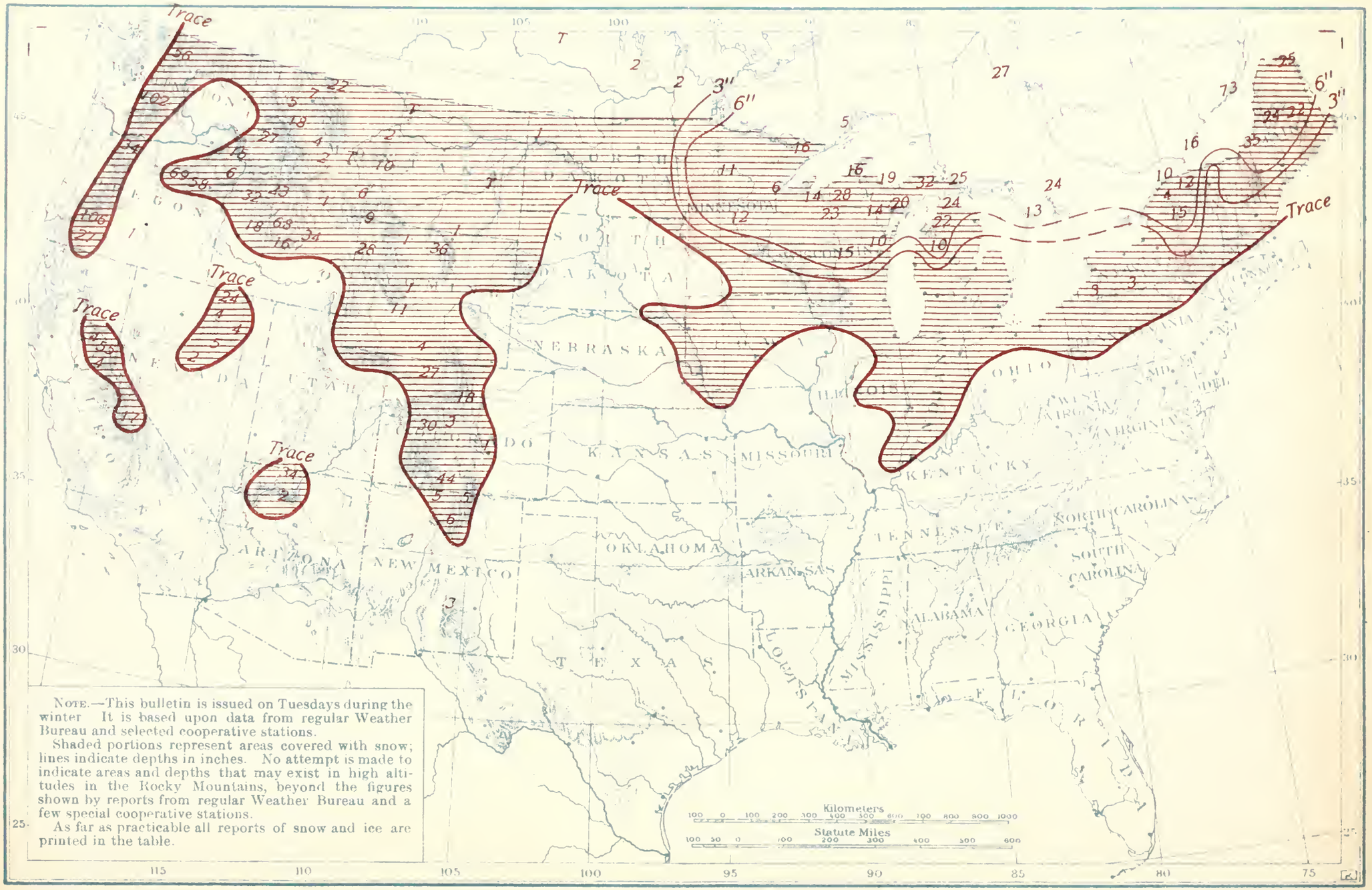
P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., FEBRUARY 27, 1928

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
Alaska	*Inches*	*Inches*	*New Hampshire*	*Inches*	*Inches*
Cordova	6	.....	Berlin	6	.....
Eagle	16	.....	Concord	T.	14.0
Nome	28	.....	Hanover	2	.....
Tanana	20	.....	Pittsburg	35	.....
Arizona			Woodsville	2	.....
Bright Angel	34	.....	*New Mexico*		
Grand Canyon	2	.....	Chama	5	.....
California		.....	Cloudcroft	3	.....
Blue Canyon	4	.....	Elizabethtown	5	.....
Huntington Lake	17	.....	Truchas	6	.....
Norden	55	.....	*New York*		
Colorado			Alfred	3	.....
Cumbres	44	.....	Beaver River	15	.....
Dillon	18	.....	Buffalo	T.	9.0
Leadville	3	.....	Canton	4	.....
Pueblo	1	0.0	Lake Placid	8	.....
Steamboat Springs	27	.....	Lowville	18	.....
Idaho			Malone	6	.....
Hailey	11	.....	Ogdensburg	10	.....
Kirkham	16	.....	Plattsburg	2	.....
McCall	32	.....	Rochester	T.	3.0
Mascot Mine	34	.....	Rome	2	.....
Vienna Mine	68	.....	Watertown	5	.....
Indiana			*North Dakota*		
Collegeville	1	.....	Bismarck	T.	24.0
Lafayette	2	.....	Williston	1	29.0
Marion	1	.....	*Ohio*		
Shoals	1	.....	Cleveland	T.	5.0
Iowa			Sandusky	T.	8.0
Davenport	0	†	Toledo	0	3.5
Des Moines	T.	14.0	Wapakoneta	1	.....
Pocahontas	4	.....	Wauseon	1	.....
Sioux City	T.	*	*Oregon*		
Maine			Crater Lake	106	.....
Gardiner	6	16.0	Fish Lake	27	.....
Greenville	24	30.0	Government Camp	34	.....
Houlton	7	.....	Imperial Mine	58	.....
Massachusetts			Sled Springs	15	.....
Holyoke	1	*	*Pennsylvania*		
Michigan			Erie	1	8.0
Benzonia	6	.....	Harrisburg	0	†
Cadillac	10	.....	Pittsburgh	T.	†
East Jordan	22	.....	Warren	2	.....
Escanaba	20	22.5	*South Dakota*		
Houghton	16	19.0	Huron	0	15.0
Ironwood	28	.....	Yankton	T.	*
Lansing	1	.....	*Vermont*		
Mackinaw	24	.....	Brattleboro	2	16.0
Newberry	32	.....	Burlington	1	.....
Port Huron	0	16.0	Northfield	5	.....
Sault Ste. Marie	25	20.0	*Washington*		
Minnesota			Cascade Tunnel	56	.....
Baudette	8	.....	Paradise Inn	102	.....
Collegeville	12	.....	*Wisconsin*		
Duluth	6	31.0	Ashland	14	.....
Leech Lake Dam	11	.....	Fond du Lac	3	.....
Moorhead	T.	29.0	Green Bay	10	15.5
Mora	8	.....	La Crosse	3	18.0
St. Paul	2	1.5	Medford	7	.....
Thief River Falls	9	.....	Park Falls	23	.....
Montana			Wausau	2	18.5
Belton	22	.....	*Wyoming*		
Bozeman	6	.....	Alta	28	.....
Haugan	18	.....	Cody	1	.....
Kalispell	7	.....	Dixon	4	.....
Loweth	10	.....	Dome Lake	36	.....
Nevada			Lander	1	.....
Arthur	4	.....	Sheridan	1	.....
Austin	2	.....	South Pass City	11	.....
Gold Creek	24	.....	Yellowstone Park	9	.....

*Shore ice. †Floating ice. ‡Ice gorged. §Measurement impracticable.
T. indicates trace.

Depth of Snow on Ground, 8 p. m., February 27, 1928



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As far as practicable all reports of snow and ice are printed in the table.

SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 13 WASHINGTON, D. C., MARCH 7, 1928 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

The week was mainly cold over the eastern third of the country and without important changes. Over the western portions it was moderately warm in the Great Plains, particularly in the more northern districts, fairly cold in the northern Rocky Mountains, and again warm in the Southwest and over the Pacific Coast States.

Minimum temperatures were below zero over the northern districts from the valley of the Red River of the North eastward to New England, but they did not go below freezing from northern Texas eastward to the South Atlantic States, or over the lower elevations of the Southwest and Pacific Coast States.

Precipitation was mainly light and but little snow occurred. Moderately heavy rains occurred near the middle portions of the east Gulf States and the adjacent areas of the South Atlantic States, and locally along the Pacific coast and in Utah, Nevada, and Colorado. Over the central and northern portions there was practically no important precipitation, and but little occurred from Texas westward to Arizona.

Much clear, pleasant weather prevailed over the greater part of the country and outdoor operations usual to the season were little hampered by inclement weather.

DEPTH OF SNOW ON GROUND

Over portions of the southern Rocky Mountains there were local moderate increases in the depth of the snow cover, particularly in Colorado where the fall for the week ranged up to a foot or more. Elsewhere in the western mountains there was little if any addition to the snow in the high elevations, and much more will be required in many districts to bring the summer water supply up to the usual needs.

East of the Rockies there were moderate gains in the snow depth over central and northern New York and near-by portions of New England, but elsewhere there was little change. Decreases in snow depth were moderate in the upper Mississippi Valley and portions of the upper Lake region, and there were moderate reductions in the depth over the northern Rocky Mountains and locally in the mountains of Oregon.

The snow-covered area decreased materially from Iowa eastward as compared with the preceding week, and in the western Mountain States additional areas have become uncovered at the more moderate elevations.

The weather was mainly unfavorable for wheat over the areas from the Rocky Mountains eastward, the frequent freezing and thawing without snow cover causing further injury.

ICE IN RIVERS AND HARBORS

Some increases are noted in the amounts of ice over the northern areas from the upper Lakes to New England, but elsewhere there were slight reductions. Conditions continue favorable for the ice harvest.

Detailed statements of the ice on the Great Lakes are set forth in the following telegram from the official in charge of the Lake Marine Service at Detroit:

Superior, fields moved out extreme west end; extensive fields over central portions. St. Marys River, solid. Green Bay, less ice than usual. Michigan, scattered fields along west and east shores north to Frankfort. From Charlevoix north to Straits, extensive fields snow-covered. Huron, scattered fields along west and extensive along east shore. St. Clair River closed; Lake St. Clair and Detroit River, open. Erie, extensive fields west end, much open water center, and extensive fields Fairport to Buffalo. Ontario, west end open; east end extensive fields.

P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., MARCH 5, 1928

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
Arizona	*Inches*	*Inches*	*New Mexico*	*Inches*	*Inches*
Bright Angel	42	.....	Chama	6	.....
Grand Canyon	T.	.....	Cloudcroft	2	.....
California			Tres Piedras	2	.....
Huntington Lake	19	.....	*New York*		
Macumber	1	.....	Albany	T.	*
Norden	52	.....	Alfred	3	.....
Colorado			Beaver River	24	.....
Crested Butte	48	.....	Binghamton	2	.....
Cumbres	51	.....	Buffalo	2	11.0
Dillon	28	.....	Fredonia	1	.....
Leadville	5	.....	Herkimer	4	.....
Steamboat Springs	28	.....	Ithaca	2	.....
Idaho			Lowville	24	.....
Big Creek	24	.....	Malone	4	.....
Hailey	11	.....	Ogdensburg	7	.....
Idaho City	20	.....	Oswego	6	†
Ketchum	15	.....	Saranac Lake	24	.....
Montpelier	1	.....	Saratoga Springs	2	.....
Pierce City	25	.....	Syracuse	6	.....
Soldier Creek	16	.....	*North Dakota*		
Vienna Mine	68	.....	Bismarck	T.	23.5
Iowa			Williston	T.	28.0
Des Moines	0	11.0	*Ohio*		
Dubuque	0	3.0	Canfield	1	.....
Maine			Cleveland	T.	3.0
Farmington	10	.....	Toledo	0	4.5
Gardiner	5	16.0	*Oregon*		
Greenville	25	32.0	Government Camp	18	.....
Millinocket	23	.....	Harrison Mine	66	.....
Van Buren	25	.....	Wallowa	2	.....
Massachusetts			*Pennsylvania*		
Holyoke	T.	1.0	Emporium	1	.....
Williamstown	2	.....	Franklin	3	.....
Michigan			Freeland	1	.....
Alma	2	.....	Gordon	1	.....
Alpena	3	14.5	Johnstown	1	.....
Cadillac	11	.....	Pittsburgh	T.	0.0
Detroit	T.	†	Towanda	2	.....
East Tawas	2	.....	Warren	3	.....
Grayling	31	.....	*Utah*		
Houghton	14	19.0	Silver Lake	58	.....
Humboldt	29	.....	*Vermont*		
Iron Mountain	12	.....	Brattleboro	0	16.0
Ironwood	30	.....	Burlington	1	11.0
Marquette	18	0.5	St. Johnsbury	12	.....
Sault Ste. Marie	25	21.0	*Washington*		
Minnesota			Cascade Tunnel	55	.....
Duluth	4	29.5	Laurier	4	.....
Ely	16	.....	Paradise Inn	106	.....
Fort Ripley	4	.....	*West Virginia*		
Leech Lake Dam	10	.....	Bayard	8	.....
Moorhead	T.	28.0	Elkins	T.	0.0
Mora	7	.....	Fairmont	T.	.....
Roseau	2	.....	Wheeling	T.	.....
St. Paul	T.	*	*Wisconsin*		
Thief River Falls	10	.....	Eau Claire	T.	.....
Montana			La Crosse	T.	14.0
Belton	22	.....	Medford	9	.....
Haugan	18	.....	Park Falls	23	.....
Kalispell	4	.....	Rhinelander	18	.....
Red Lodge	15	.....	Wausau	2	19.0
Nevada			*Wyoming*		
Arthur	5	.....	Alta	20	.....
Hylton	5	.....	Cheyenne	1	.....
North Fork	7	.....	Dome Lake	36	.....
New Hampshire			Evanston	4	.....
Berlin	8	.....	Lander	2	.....
Concord	0	13.0	Sheridan	1	.....
Hanover	2	.....	Wheatland	3	.....
Lancaster	7	.....	Yellowstone Park	9	.....

* Shore ice. † Floating ice. ‡ Ice gorged. § Measurement impracticable.
T. indicates trace.

Depth of Snow on Ground, 8 p. m., March 5, 1928

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SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 14 WASHINGTON, D. C., MARCH 14, 1928 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

The weather during the week just closed was variable to some extent, but, on the whole, satisfactory to most interests.

Temperatures were above normal for the period of the year over much of the country, particularly in the central valleys and to the westward, the weekly averages being decidedly high over the Great Plains, middle Mississippi Valley, and Southwest. Over the Northeastern States the week was moderately cool.

Temperatures were occasionally below zero at a few points along the northern border, but they did not go below freezing in the Gulf States, the southern Great Plains, and the lower elevations of the Southwest and Pacific Coast States.

Precipitation was sufficient for present needs over much of the country, though little fell in the Great Plains of the Southwest. Rains were rather frequent in the Gulf States and somewhat less so over the remaining districts east of the Mississippi River, the most important and widespread occurring on Friday and Saturday during the passage eastward of an important cyclone moving over the central portion of the country on those dates. This storm brought heavy snows in portions of the Great Lakes region and over the northern portions of New York and New England. In upper Michigan the depths amounted locally to 2 feet.

Some heavy rains occurred in the far Northwest on Saturday and Sunday, and moderately heavy rains occurred during Sunday and Monday over the east Gulf and Atlantic coast districts. At the close a storm of considerable importance was causing moderate rains from the upper and middle Mississippi and lower Ohio Valleys to the Great Lakes.

DEPTH OF SNOW ON GROUND

As compared with conditions at the close of the preceding week, the depth of snow is materially greater from central Pennsylvania northeastward to New England where the increases range from 2 to 12 inches or more, and there were substantial increases over the depths reported a week ago from eastern North Dakota to northern Michigan. There were a few moderately important increases in the snow depths over the high elevations of the Rocky Mountains in Colorado and Wyoming, and there were fairly general and important increases over the high mountains of central Idaho, northeastern Oregon, and the Cascades of Washington.

In the other mountain districts of the West there was little or no increase, and moderate decreases in the depth were reported in most districts.

The snow-covered area is not greatly different from that reported a week ago save from eastern Pennsylvania northeastward to southern New England where the ground, bare a week ago, is now moderately covered. Over the mountain districts of the West considerable areas at the more moderate elevations were uncovered during the week.

ICE IN RIVERS AND HARBORS

Ice conditions remain about as reported a week ago over most northern districts, but farther south, where ice still remained, there was some breaking up.

Ice conditions over the Great Lakes are set forth in the usual telegram from the Detroit office:

Superior, extensive fields west; open water central; solid fields east portion. St. Marys River, closed and unchanged. Green Bay, no change north; softening south portion. Michigan, no fields along west shore; moving fields Grand Haven northward; from Charlevoix northward, heavy, solid fields; unchanged at straits. Huron, extensive fields east end straits; moving fields broken ice extend from Middle Island southward to Port Huron; east shore, solid ice. St. Clair River closed. Lake St. Clair and Detroit River, open. Erie, extensive fields each end. Ontario, fields confined to extreme east end.

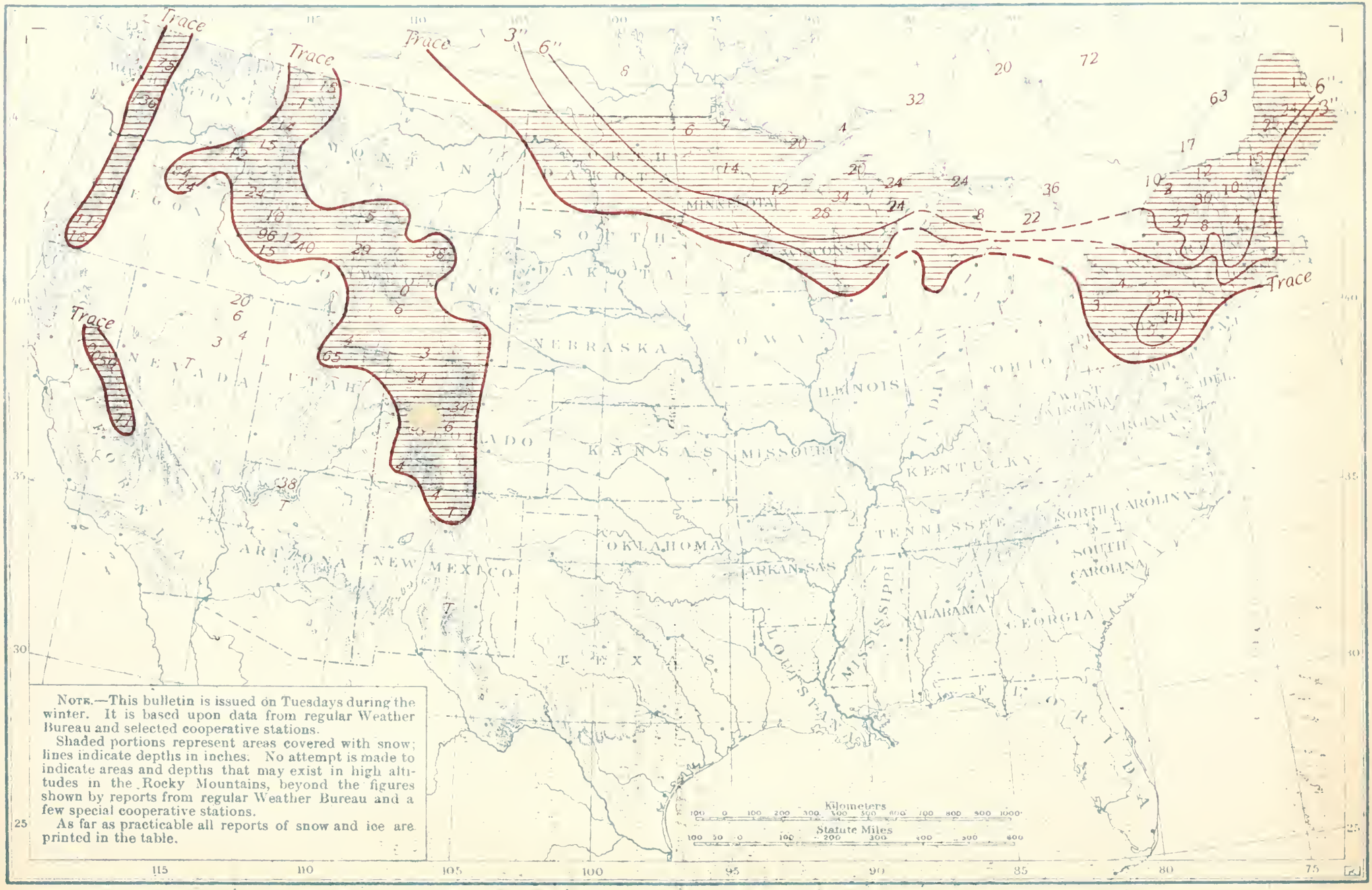
P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., MARCH 12, 1928

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
Alaska	*Inches*	*Inches*	*New Mexico*	*Inches*	*Inches*
Eagle	17	.....	Chama	4	.....
Fort Yukon	30	.....	*New York*		
Nome	18	.....	Albany	1	*
St. Paul Island	4	.....	Alfred	4	.....
California		.....	Beaver River	36	.....
Huntington Lake	11	.....	Buffalo	T.	12.0
Norden	50	.....	Canton	2	.....
Colorado			Delhi	6	.....
Crested Butte	56	.....	Herkimer	3	.....
Dillon	34	.....	Jamestown	2	.....
Leadville	6	.....	Lake Placid	19	.....
Rico	4	.....	Malone	6	.....
Steamboat Springs	34	.....	Norwich	6	.....
Connecticut			Old Forge	37	.....
Hartford	T.	†	Oswego	4	1.0
West Cornwall	8	.....	Plattsburg	12	.....
Idaho			Rochester	2	0.0
Hailey	4	.....	Rome	5	.....
Idaho City	13	.....	Saranac Lake	30	.....
Kirkham	10	.....	Saratoga Springs	8	.....
McCall	24	.....	Syracuse	2	.....
Mascot Mine	40	.....	Watertown	5	.....
Shake Creek	13	.....	*North Dakota*		
Vienna Mine	96	.....	Bismarck	1	23.0
Maine			Devils Lake	6	.....
Farmington	10	.....	Williston	T.	§
Gardiner	T.	12.0	*Oregon*		
Greenville	25	32.0	Crater Lake	117	.....
Houlton	10	.....	Fish Lake	18	.....
Millinocket	24	.....	Imperial Mine	74	.....
Portland	1	0.0	Sled Springs	12	.....
Massachusetts			*Pennsylvania*		
Boston	1	0.0	Allentown	2	.....
Concord	4	.....	Erie	0	8.0
Holyoke	6	3.0	Gordon	5	.....
Michigan			Harrisburg	4	0.0
Alpena	8	†	Mifflintown	5	.....
Escanaba	24	24.0	State College	3	.....
Houghton	20	20.0	Warren	3	.....
Iron Mountain	16	.....	Williamsport	1	.....
Ironwood	34	.....	*Rhode Island*		
Marquette	24	6.0	Block Island	1	0.0
Port Huron	0	14.0	Kingston	6	.....
Sault Ste. Marie	24	20.0	Providence	2	0.0
Minnesota			*South Dakota*		
Baudette	7	.....	Huron	0	6.0
Collegeville	8	.....	Pierre	0	†
Duluth	12	30.5	*Utah*		
Ely	20	.....	Silver Lake	65	.....
Leech Lake Dam	14	.....	*Vermont*		
Moorhead	6	28.0	Brattleboro	4	15.0
Roseau	6	.....	Northfield	10	.....
St. Paul	T.	*	*Washington*		
Virginia	15	.....	Cascade Tunnel	75	.....
Montana			Paradise Inn	136	.....
Belton	18	.....	*Wisconsin*		
Haugan	14	.....	Ashland	14	.....
Red Lodge	6	.....	Eau Claire	2	.....
Nevada			Fond du Lac	1	.....
Arthur	4	.....	Green Bay	4	5.0
Gold Creek	20	.....	Park Falls	28	.....
Hylton	3	.....	Stevens Point	5	.....
North Fork	6	.....	Wausau	5	14.5
New Hampshire			*Wyoming*		
Berlin	15	.....	Alta	29	.....
Concord	1	12.0	Dixon	3	.....
Durham	3	.....	Dome Lake	38	.....
Hanover	6	.....	Evanston	4	.....
West Stewartstown	36	.....	South Pass City	6	.....
Woodsville	8	.....	Yellowstone Park	5	.....

* Shore ice. † Floating ice. ‡ Ice gorged. § Measurement impracticable.
T. indicates trace.

Depth of Snow on Ground, 8 p. m., March 12, 1928



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SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 15 WASHINGTON, D. C., MARCH 21, 1928 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

The week just closed was generally cold for the season over most districts between the Rocky and Allegheny Mountains, save in the upper Missouri Valley, the area of greatest negative departures, −6° to −9°, embracing the States from the middle Plains to the Ohio Valley. Over the Northeastern States and portions of the Southeast the weekly means were slightly above normal, and similar conditions existed from the Rocky Mountains eastward and in the upper Missouri Valley.

Freezing temperatures occurred over the greater part of the country, the only exceptions being the southern portions of the Gulf and Southeastern States and the lower elevations of the Pacific Coast States and far Southwest.

The principal storm of the week developed over the Southwest on Thursday morning and during the following 48 hours moved eastward over the southern mountains and Great Plains to the Gulf and South Atlantic States, considerable snow occurring over the higher elevations of the Southwest and moderately heavy rain in the middle Gulf States, with more or less snow over the southern drainage of the Ohio Valley. As this storm was passing over the Gulf States it appears to have merged into another storm that reached the Southeastern States on Saturday morning and moved northeastward along the coast, reaching the Jersey coast by Sunday morning, the rain turning to sleet near the coast and to snow over the interior districts from western South Carolina, extending northward and westward into the Ohio Valley, and becoming heavy in the mountains of the Virginias and thence northeastward.

The precipitation was moderately heavy from the middle and southern Great Plains eastward and northeastward to the Atlantic coast, and was especially beneficial in the western portions of Kansas, Oklahoma, and near-by areas.

DEPTH OF SNOW ON GROUND

Compared with the preceding week, the depth of snow on ground increased materially over the Appalachian region from the Virginias northward over Maryland, Pennsylvania, New York, and extreme northeastern New England, the increases ranging up to 20 inches locally, due to heavy falls near the end of the week. Considerable snow fell during the week from the middle Rocky Mountains eastward to the Ohio Valley, but this generally melted before the close.

Some increase in depth is noted in portions of the upper Lake region and over the eastern slopes of the middle Rocky Mountains, but elsewhere in the western mountains there was a widespread and material reduction in the depth as compared with the preceding week, the decreases ranging up to a foot or more.

The outlook for irrigation water appears fairly good in most Rocky Mountain areas and in the more important mountain districts of Idaho and Washington. In California and near-by areas the outlook continues poor.

ICE IN RIVERS AND HARBORS

The ice is slowly breaking up over the northern districts where it still remains and is passing out without important damage.

The conditions on the Great Lakes are set forth in the following telegram from the Detroit office:

Superior, more extensive fields west portion. From Marquette to White Fish Point, heavy and extensive fields. St. Marys River, closed. Green Bay, opening at south end. Michigan, no fields along west shore; east shore, scattered fields from St. Joseph north to Frankfort; heavy, extensive fields Charlevoix north to Straits. Huron, east end Straits full of ice; moving fields along west shore Middle Island to Port Huron. St. Clair River, beginning to open. Lake St. Clair and Detroit River, open. Erie, west and central portions open; drifting fields east portion and breaking up. Ontario, fields confined to extreme east end.

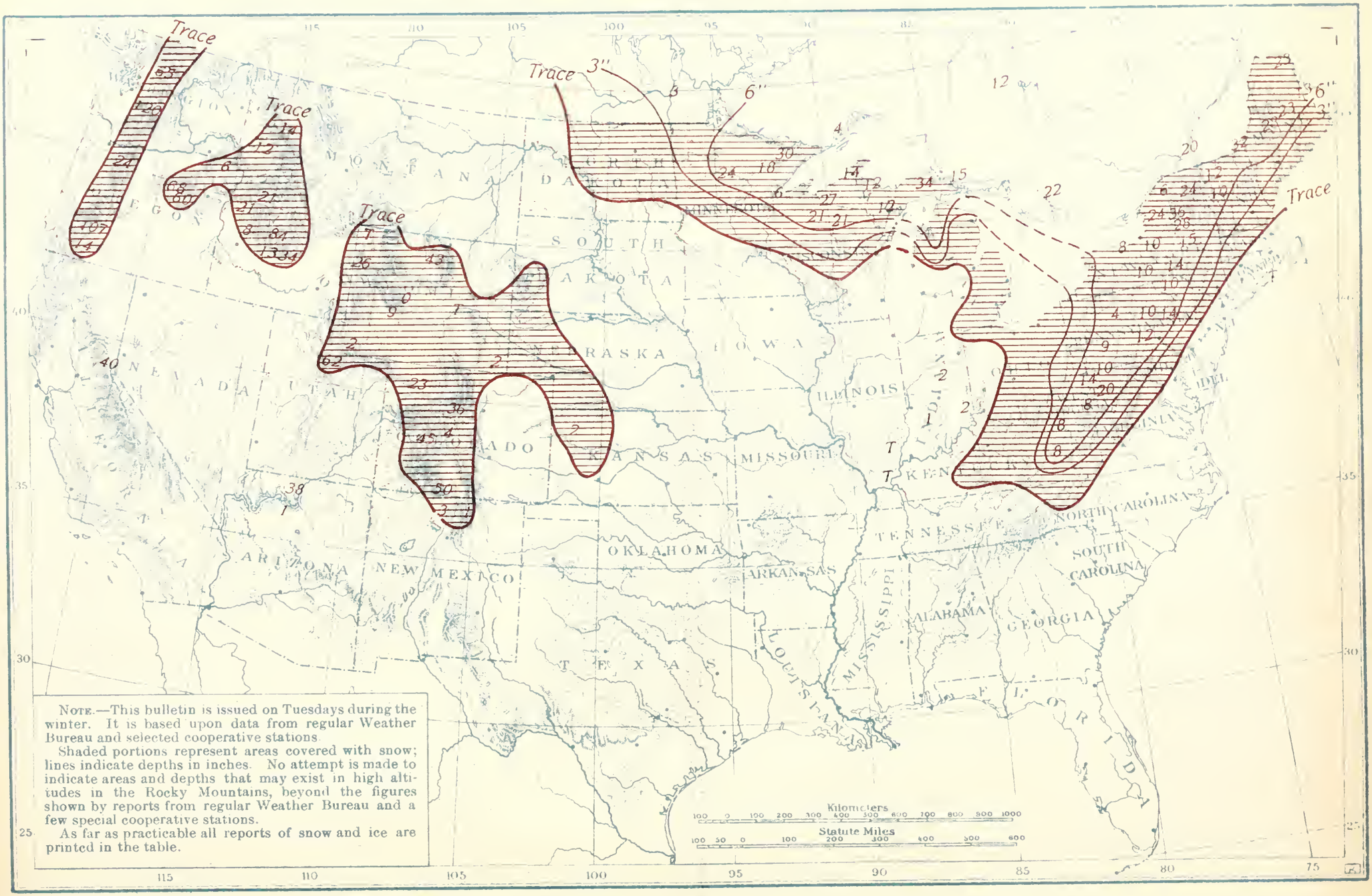
P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., MARCH 19, 1928

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
Alaska	*Inches*	*Inches*	*New York*	*Inches*	*Inches*
Cordova	12	.....	Albany	6	0.0
Eagle	20	.....	Alfred	8	.....
Fort Yukon	35	.....	Beaver River	36	.....
Nome	19	.....	Binghamton	10	.....
Tanana	17	.....	Buffalo	3	12.0
Arizona			Canton	6	.....
Bright Angel	38	.....	Fredonia	6	.....
Grand Canyon	1	.....	Ithaca	10	.....
California			Lake Placid	15	.....
Norden	40	.....	Lowville	24	.....
Colorado			Malone	10	.....
Crested Butte	45	.....	Poughkeepsie	2	.....
Cumbres	50	.....	Rochester	8	0.0
Dillon	36	.....	Rome	12	.....
Leadville	4	.....	Syracuse	10	.....
Steamboat Springs	23	.....	Warwick	3	.....
Idaho			*North Dakota*		
Ketchum	7	.....	Bismarck	T.	22.0
McCall	21	.....	Devils Lake	1	.....
Pierce City	12	.....	*Ohio*		
Soldier Creek	13	.....	Ashland	1	.....
Vienna Mine	84	.....	Beverly	4	.....
Indiana			Zanesville	2	.....
Angola	1	.....	*Oregon*		
Mauzy	2	.....	Crater Lake	107	.....
Kansas			Government Camp	24	.....
Dresden	1	.....	Harrison Mine	68	.....
Goodland	2	.....	Sled Springs	6	.....
Kentucky			*Pennsylvania*		
Beattyville	2	.....	Beaver Falls	4	.....
Eubank	1	.....	Confluence	10	.....
Greensburg	1	.....	Emporium	4	.....
Maysville	2	.....	Erie	2	†
Maine			Franklin	4	.....
Gardiner	4	8.0	Gettysburg	5	.....
Greenville	28	34.0	Harrisburg	8	0.0
Houlton	13	.....	Johnstown	9	.....
Millinocket	23	.....	Pittsburgh	6	0.0
Portland	1	0.0	Scranton	3	.....
Van Buren	23	.....	*Utah*		
Maryland			Silver Lake	62	.....
Oakland	10	.....	*Vermont*		
Michigan			Bellows Falls	4	.....
Benzonia	4	.....	Brattleboro	3	*
Cadillac	6	.....	Burlington	12	*
Escanaba	12	23.0	Northfield	10	.....
Houghton	14	20.5	Rutland	6	.....
Ironwood	27	.....	*Virginia*		
Mackinaw	31	.....	Dale Enterprise	6	.....
Marquette	12	7.0	Woodstock	3	.....
Newberry	34	.....	Wytheville	2	.....
Sault Ste. Marie	15	20.0	*Washington*		
Minnesota			Cascade Tunnel	65	.....
Duluth	6	29.0	Paradise Inn	120	.....
Fort Ripley	2	.....	*West Virginia*		
Leech Lake Dam	24	.....	Charleston	8	.....
Moorhead	T.	25.0	Elkins	8	0.0
Mora	3	.....	Fairmont	8	.....
St. Paul	T.	0.0	Parkersburg	2	0.0
Thief River Falls	4	.....	Wheeling	4	.....
Virginia	18	.....	*Wisconsin*		
Montana			Green Bay	T.	*
Haugan	14	.....	Medford	6	.....
New Hampshire			Park Falls	21	.....
Concord	1	10.0	Wausau	1	10.0
Hanover	3	.....	*Wyoming*		
Pittsburg	32	.....	Alta	26	.....
New Mexico			Cheyenne	2	.....
Chama	3	.....	Dome Lake	43	.....
Elizabethtown	1	.....	South Pass City	9	.....

* Shore ice. † Floating ice. ‡ Ice gorged. § Measurement impracticable.
T. indicates trace.

Depth of Snow on Ground, 8 p. m., March 19, 1928



NOTE.—This bulletin is issued on Tuesdays during the winter. It is based upon data from regular Weather Bureau and selected cooperative stations.

Shaded portions represent areas covered with snow; lines indicate depths in inches. No attempt is made to indicate areas and depths that may exist in high altitudes in the Rocky Mountains, beyond the figures shown by reports from regular Weather Bureau and a few special cooperative stations.

As far as practicable all reports of snow and ice are printed in the table.

SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 16 WASHINGTON, D. C., MARCH 28, 1928 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

The week opened with general low barometric pressure, warm weather for the season, showery conditions over the far West, with local heavy rains in portions of northern California, and thundershowers in the central valleys. Rising pressure and sunshiny weather soon followed, however, and unusual warmth prevailed over nearly the entire country until Sunday, when cyclonic conditions developed over the western districts, and by Monday morning a storm of wide extent was central over the middle Mississippi Valley, attended by showers and thunderstorms, with local snow in the Lake region and near-by areas. This storm moved rapidly to New England, though no important precipitation occurred over the Northeastern States. At the same time, considerable precipitation had fallen over the far West and a second cyclone of importance was developing over the middle Rocky Mountains.

The average temperature for the week was above normal in nearly all parts of the country and unusually high over the central valleys and northern districts. Only in Florida were the weekly averages below normal, and here but slightly.

Freezing temperatures were not observed over large areas during most of the week, but toward the end colder weather overspread the central and northern districts from the Rocky Mountains eastward to the Ohio Valley and lower Lakes, and temperatures of 32° or lower had occurred as far south as Oklahoma and nearly to the northern portions of the Gulf States.

Precipitation was mainly light, as for several weeks past, save in the Southeast where there were moderate rains, and from central California and Nevada northward where general rains occurred. There was little precipitation over the Middle and North Atlantic States and thence westward to the Rocky Mountains, and from the lower Mississippi Valley westward to southern California.

DEPTH OF SNOW ON GROUND

Some snow occurred during the week over small areas in the northern Rocky Mountains, and there were local heavy falls during the last day or two from southern Wisconsin and northern Illinois eastward to the lower Lakes, but elsewhere there was little addition to the diminishing cover. Compared with the preceding week, there was a marked decrease in the depth of the snow cover from the Virginias northward to New England, due to the unusual warmth, and the heavy covering at the beginning of the week disappeared rapidly save over the more northern districts. The locally heavy falls around the southern end of Lake Michigan and to the eastward near the end of the week largely disappeared, and the amounts still remaining on the ground over the northern portions of the upper Lakes likewise decreased notably. In the far West no important snow occurred save at a few of the higher elevations, and the snow cover is now confined to the more elevated districts.

ICE IN RIVERS AND HARBORS

The ice continued to break up and move out of the more northern rivers.

The detailed conditions over the Great Lakes are set forth in the following telegram from the Detroit office:

Superior, small fields west end, extensive moving fields central, and solid fields east end. No change in St. Marys River. Green Bay, north end no change; opening at south end. Michigan, no fields west shore; small, scattered fields east shore north to Manistee; from Charlevoix north to Straits, extensive fields; no movement. Huron, east end of Straits opening; scattered fields west shore; extensive east shore. St. Clair River, opening. Lake St. Clair and Detroit River, open. Erie, scattered fields west end from Ashtabula eastward; extensive fields moving with wind; Buffalo, ice softening and much open water showing. Ontario, field confined to extreme east end.

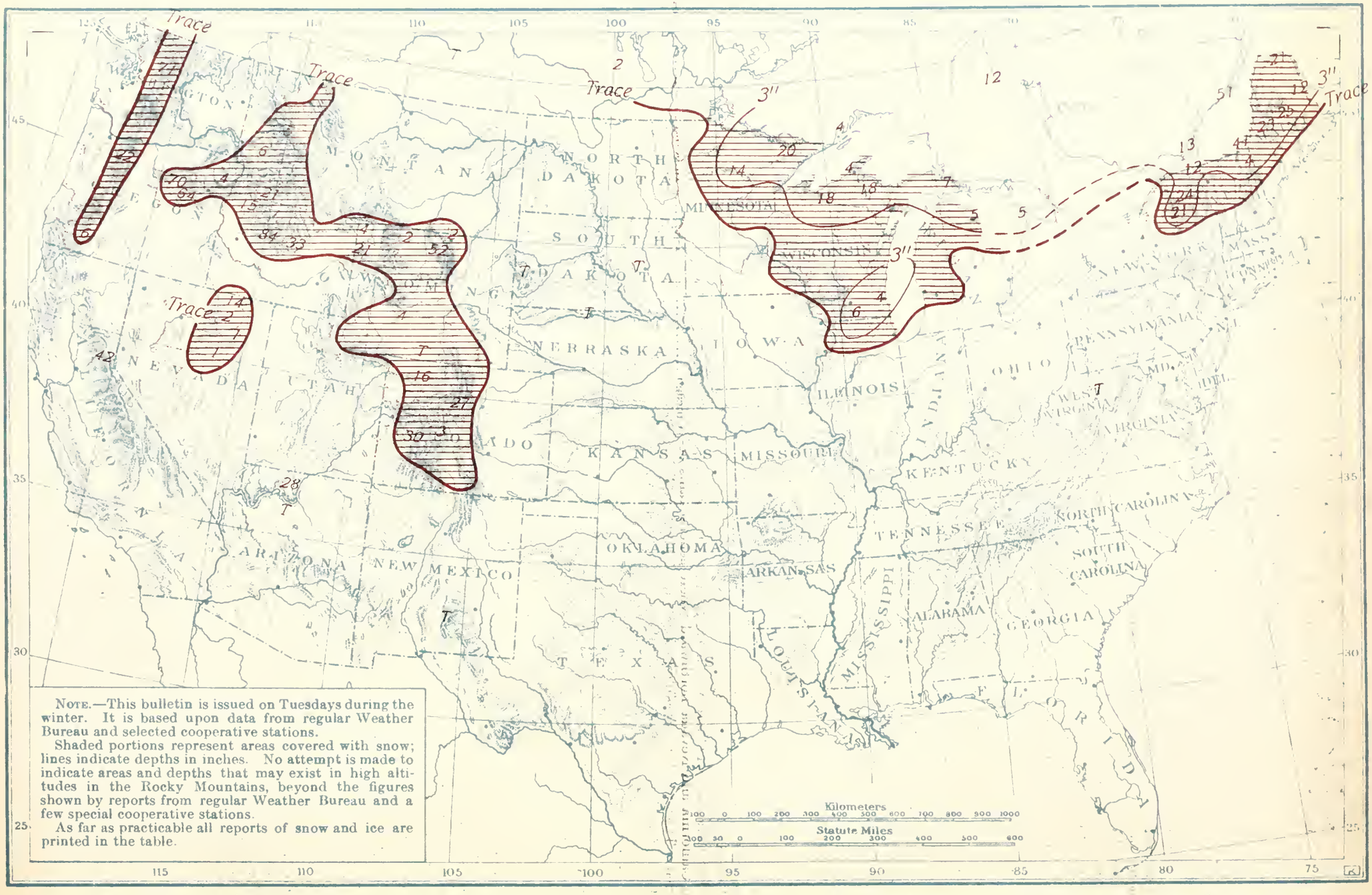
P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., MARCH 26, 1928

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
Alaska	*Inches*	*Inches*	*Nebraska*	*Inches*	*Inches*
Eagle	20	.....	Valentine	T.	.....
Fort Yukon	30	.....	*Nevada*		
Nome	18	.....	Arthur	1	.....
St. Paul Island	7	.....	Austin	T.	.....
Tanana	17	.....	Gold Creek	14	.....
Arizona			Hylton	1	.....
Bright Angel	28	.....	North Fork	2	.....
Grand Canyon	T.	.....	*New Hampshire*		
California		.....	Berlin	4	.....
Norden	42	.....	Hanover	T.	.....
Colorado			Lancaster	6	.....
Crested Butte	30	.....	Pittsburg	41	.....
Dillon	27	.....	Woodsville	2	.....
Leadville	3	.....	*New Mexico*		
Rico	T.	.....	Cloudcroft	T.	.....
Steamboat Springs	16	.....	*New York*		
Idaho			Beaver River	24	.....
Big Creek	21	.....	Buffalo	0	7.0
Idaho City	T.	.....	Canton	T.	.....
Kirkham	T.	.....	Lake Placid	T.	.....
McCall	15	.....	Old Forge	21	.....
Mascot Mine	33	.....	Saranac Lake	12	.....
Pierce City	6	.....	*Oregon*		
Soldier Creek	4	.....	Baker	T.	.....
Spencer	T.	.....	Fish Lake	6	.....
Vienna Mine	84	.....	Government Camp	22	.....
Illinois			Harrison Mine	70	.....
Chicago	1	.....	Imperial Mine	64	.....
Freeport	4	.....	Wallowa	4	.....
Iowa			*South Dakota*		
Davenport	T.	0.0	Huron	T.	0.0
Maine			Pierre	0	†
Farmington	5	.....	Rapid City	T.	.....
Gardiner	T.	‡	*Vermont*		
Greenville	23	34.5	Brattleboro	0	†
Houlton	12	.....	Burlington	T.	*
Millinocket	25	.....	Northfield	2	.....
Van Buren	21	.....	White River Junction	T.	.....
Michigan			*Washington*		
Alpena	5	0.0	Cascade Tunnel	71	.....
Benzonia	T.	.....	*West Virginia*		
East Jordan	2	.....	Bayard	T.	.....
Escanaba	T.	21.5	*Wisconsin*		
Grand Haven	1	.....	Brodhead	6	.....
Grand Rapids	1	.....	Eau Claire	T.	.....
Houghton	4	13.5	Fond du Lac	3	.....
Humboldt	18	.....	Green Bay	1	0.0
Iron Mountain	T.	.....	Madison	5	.....
Ironwood	18	.....	Medford	T.	.....
Lansing	T.	.....	Milwaukee	4	.....
Ludington	3	.....	Park Falls	9	.....
Sault Ste. Marie	7	20.0	Racine	4	.....
Minnesota			Wausau	T.	*
Collegeville	T.	.....	*Wyoming*		
Duluth	T.	21.0	Alta	21	.....
Ely	20	.....	Casper	T.	.....
Grand Meadow	T.	.....	Cheyenne	T.	.....
Leech Lake Dam	14	.....	Cody	2	.....
Moorhead	0	*	Dome Lake	52	.....
Thief River Falls	T.	.....	Evanston	T.	.....
Montana			Sheridan	2	.....
Belton	9	.....	South Pass City	4	.....
Haugan	5	.....	Yellowstone Park	4	.....

*Shore ice. †Floating ice. ‡Ice gorged. § Measurement impracticable.
T. indicates trace.

Depth of Snow on Ground, 8 p. m., March 26, 1928



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As far as practicable all reports of snow and ice are printed in the table.

SNOW AND ICE BULLETIN

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU
CHARLES F. MARVIN, Chief

No. 17 WASHINGTON, D. C., APRIL 4, 1928 WINTER 1927-28

GENERAL SUMMARY OF THE WEATHER FOR THE WEEK

The week opened with a decided fall in temperature over the central valleys, extending eastward during Wednesday into the Atlantic Coast States. This was quickly followed by another moderately cool period, which, during the latter part of the week, overspread the southern districts, light frosts occurring Saturday and Sunday in portions of the Gulf States and northern Florida, but there was a general reaction to warmer weather over central and eastern districts as the week closed.

For the week, as a whole, the average temperatures were mainly below normal from the Mississippi River eastward and over the far West, and they were somewhat above in the Plains States and western mountain districts. Night temperatures were below freezing at some time during the week southward to Tennessee and western North Carolina and into the central part of western Texas and over much of New Mexico. No important frost damage occurred, however, except to some early fruit blossoms in New Mexico.

The first half of the week was somewhat stormy, and important rains occurred over the districts from the Mississippi River eastward, with considerable snow from Iowa and near-by areas eastward over northern Illinois to Indiana and Ohio, with heavy glaze occurring in some northern portions of the two last-named States, causing much damage to overhead communications and to fruit and other trees. The latter part of the week was without important precipitation save in the far West where there were local, heavy rains, particularly in California and Oregon, causing high waters and damage to crops, with heavy snow in some of the higher mountains.

DEPTH OF SNOW ON GROUND

No important addition to the snow cover occurred during the week east of the Rocky Mountains, the fall of from 2 to 6 inches or more occurring over much of Iowa, southern Wisconsin, and near-by areas in Illinois and to the eastward soon melted, and there was a substantial reduction in the depth of the cover still remaining in the upper Lake region and the northern portions of New York and New England.

In the western mountain regions there were some reductions in depths over Colorado, Wyoming, northern Arizona, and in a few other high mountain areas, but there were important additions to the depth in some high elevations of California, Oregon, and the far Northwest, which have added materially to the stored supplies and greatly improved the water outlook for the coming summer season.

The frequent freezing and thawing during the past winter over the central valleys, where there was comparatively little snow cover, caused much damage to winter wheat, clover, etc., particularly in the Ohio Valley and near-by areas, some sections reporting the damage as the greatest in many years.

ICE IN RIVERS AND HARBORS

The remaining ice has generally gone out of the important rivers.

The ice conditions on the Great Lakes are set forth in the following telegram from the Detroit office:

Superior, considerable open water west portion; extensive fields central and east portions. St. Marys River closed. Green Bay, north closed; south open. Michigan, no fields along west or east shores, except from Charlevoix north to Straits where ice is honeycombing and open water is appearing. Huron, no fields along west shore, but extensive fields east shore. St. Clair and Detroit Rivers open. Erie, west and central portions free; ice fields extend from Erie east to Buffalo, but beginning to break up, except at Buffalo. Ontario, fields confined to extreme east portion.

P. C. DAY,
Meteorologist, in charge of Division.

SNOW DEPTH AND ICE THICKNESS, 8 P. M., APRIL 2, 1928

Stations	Snow	Ice in rivers, harbors, etc.	Stations	Snow	Ice in rivers, harbors, etc.
Arizona	*Inches*	*Inches*	*Montana*	*Inches*	*Inches*
Bright Angel	18	.....	Belton	10	.....
California			Bozeman	2	.....
Big Creek	1	.....	Loweth	4	.....
Blue Canyon	16	.....	*Nevada*		
Hat Creek	14	.....	Arthur	1	.....
Huntington Lake	6	.....	Austin	T.	.....
McCloud	15	.....	Gold Creek	12	.....
Macumber	6	.....	Hylton	1	.....
Norden	83	.....	North Fork	2	.....
Colorado			Reno	2	.....
Crested Butte	20	.....	*New Hampshire*		
Cumbres	28	.....	Berlin	2	.....
Dillon	24	.....	Hanover	T.	.....
Steamboat Springs	13	.....	Pittsburg	38	.....
Idaho			West Stewartstown	30	.....
Big Creek	27	.....	*New York*		
McCall	26	.....	Alfred	T.	.....
Mascot Mine	36	.....	Beaver River	20	.....
Shake Creek	3	.....	Buffalo	0	6.0
Soldier Creek	3	.....	Canton	T.	.....
Maine			Lowville	12	.....
Farmington	5	.....	*Oregon*		
Gardiner	T.	*	Crater Lake	160	.....
Houlton	11	.....	Harrison Mine	96	.....
Oldtown	1	.....	Imperial Mine	79	.....
Van Buren	16	.....	Siskiyou	3	.....
Michigan			Sled Springs	8	.....
Alma	1	.....	*Utah*		
Benzonia	T.	.....	Silver Lake	67	.....
East Tawas	2	.....	*Vermont*		
Escanaba	T.	18.0	Burlington	T.	*
Grand Rapids	T.	.....	Northfield	1	.....
Houghton	T.	‡	*West Virginia*		
Iron Mountain	T.	.....	Bayard	T.	.....
Ironwood	12	.....	*Wisconsin*		
Mackinaw	3	.....	Fond du Lac	T.	.....
Marquette	T.	0.0	Milwaukee	T.	.....
Newberry	7	.....	Park Falls	6	.....
Saginaw	3	.....	*Wyoming*		
Sault Ste. Marie	2	18.0	Alta	23	.....
Minnesota			Cody	1	.....
Duluth	0	16.0	Dome Lake	40	.....
Ely	24	.....	Evanston	T.	.....
Leech Lake Dam	6	.....	South Pass City	4	.....
			Yellowstone Park	1	.....

*Shore ice. †Floating ice. ‡Ice gorged. §Measurement impracticable.
T. indicates trace.

This issue closes the season of the Snow and Ice Bulletin of 1927-28. Further reports on ice conditions in the Great Lakes will be issued weekly from Detroit.

Depth of Snow on Ground, 8 p. m., April 2, 1928

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